

1. Transmitted Data  
1-1. Channel Messages

Status [Bin(Hex)]	Second [Bin(Hex,Dec)]	Third [Bin(Hex)]	Description [i30]	
1000 nnnn (8n)	0kkk kkkk (kk, kkk)	0100 0000 (40)	Note Off (*1) k=001~127 [61Keys+Octave+Transpose] (Seq:000~127)	A
1001 nnnn (9n)	0kkk kkkk (kk, kkk)	0VVV VVVV (VV)	Note On (*1) k=001~127 [61Keys+Octave+Transpose] (Seq:000~127) V=001~127 [Velocity] (Seq:002~126 even number)	A
1010 nnnn (An)	0kkk kkkk (kk, kkk)	0vvv vvvv (vv)	Poly Key Pressure[Recorded Sequence Data]	T, Q
1011 nnnn (Bn)	0000 0000 (00, 000)	0MMM MMMM (MM)	Bank Select MSB [Program Bank Key, etc] (*2)	B
1011 nnnn (Bn)	0010 0000 (20, 032)	0LLL LLLL (LL)	Bank Select LSB [Program Bank Key, etc] (*2)	B
1011 nnnn (Bn)	0000 0001 (01, 001)	0vvv vvvv (vv)	Modulation 1 [Joystick (+Y)]	C
1011 nnnn (Bn)	0000 0010 (02, 002)	0vvv vvvv (vv)	Modulation 2 [Joystick (-Y)]	C
1011 nnnn (Bn)	0000 0100 (04, 004)	0111 1111 (7F)	Foot Controller [KBD(Special)Scale On]	C
		0000 0000 (00)	Foot Controller [KBD(Special)Scale Off=Normal Scale]	C
1011 nnnn (Bn)	0000 0111 (07, 007)	0vvv vvvv (vv)	Volume [Volume]	C
1011 nnnn (Bn)	0000 1010 (0A, 010)	0vvv vvvv (vv)	Panpot [Pan]	C
1011 nnnn (Bn)	0000 1011 (0B, 011)	0vvv vvvv (vv)	Expression [Assignable Pedal:KBD Expression]	C
1011 nnnn (Bn)	0000 1100 (0C, 012)	0vvv vvvv (vv)	Effect Control 1 [Assign:FX Control 1(CC#12)]	C
1011 nnnn (Bn)	0000 1101 (0D, 013)	0vvv vvvv (vv)	Effect Control 2 [Assign:FX Control 2(CC#13)]	C
1011 nnnn (Bn)	0100 0000 (40, 064)	0111 1111 (7F)	Damper Pedal On [Damper Pedal]	C
		0000 0000 (00)	Damper Pedal Off [Damper Pedal]	C
1011 nnnn (Bn)	0100 1010 (4A, 074)	0vvv vvvv (vv)	Brightness [Assignable Pedal:VDF Cutoff]	C
1011 nnnn (Bn)	0101 1011 (5B, 091)	0vvv vvvv (vv)	Effect 1 Depth [C Send Level]	C
1011 nnnn (Bn)	0101 1101 (5D, 093)	0vvv vvvv (vv)	Effect 3 Depth [D Send Level]	C
1011 nnnn (Bn)	0ccc cccc (cc, ccc)	0vvv vvvv (vv)	Control Change [Recorded Sequence Data]ccc=000~127	C, Q
1100 nnnn (Cn)	0ppp pppp (pp, ppp)	----	Program Change [Program Number]	P
1101 nnnn (Dn)	0vvv vvvv (vv, vvv)	----	Channel Pressure [Aftertouch]	T
1110 nnnn (En)	0bbb bbbb (bb, bbb)	0bbb bbbb (bb)	Pitch Bend [Joystick (X)]	C

nnnn:MIDI Channel Number 0~15 [1~16], Program Mode - Global Channel

VVVV:Velocity

vvvv:Value (000~127)

A :Always Enabled

C :Enabled when "Enable Control Change" in Global Mode is Checked

P :Enabled when "Enable Program Change" in Global Mode is Checked

B :Enabled when "Enable Bank Change" in Global Mode is Checked

T :Enabled when "Enable Aftertouch" in Global Mode is Checked

Q :Enabled when Sequencer is Playing(Transmit), Recording(Receive)

(*1)-----+ Key=[Hex,Dec]	
G 9 = 7F,127	Oct.+2 Transpose+7
C 9 = 78,120	Octave +2
C 8 = 6C,108	Octave +1
C 7 = 60,096	61Key
C 6 = 54,084	
C 5 = 48,072	
C 4 = 3C,060	
C 3 = 30,048	
C 2 = 24,036	61Key
C 1 = 18,024	Octave -1
C 0 = 0C,012	Octave -2
C#-1 = 01,001	Oct.-2 Transpose-11
C-1 = 00,000	Seq. Recorded Data

(*2)-----+ i30 : MIDI Out[Hex(Dec)]	
A11~A88: MM , LL , pp =38(056),00(000),00~3F(000~063)	
(When Discard KORG GM)=00(000),00(000),00~3F(000~063)	
B11~B88: MM , LL , pp =38(056),00(000),40~7F(064~127)	
(When Discard KORG GM)=00(000),00(000),40~7F(064~127)	
C11~C88: MM , LL , pp =00(000),01(001),00~3F(000~063)	
D11~D88: MM , LL , pp =00(000),01(001),40~7F(064~127)	
E11~E88: MM , LL , pp =00(000),02(002),00~3F(000~063)	
F11~F88: MM , LL , pp =00(000),03(002),00~3F(000~063)	
G11~G88: MM , LL , pp =00(000),03(002),40~7F(064~127)	
R Bank : MM , LL , pp =3E(062),00(000),pp	
(When Discard KORG GM)=00(000),04(004),pp	
R11 :	00(000)
R12 :	01(001)
R13 :	08(008)
R14 :	10(016)
R15 :	18(024)
R16 :	19(025)
R17 :	1A(026)
R18 :	20(032)
R21 :	28(040)
R22 :	30(048)
R23 :	40(064)
R24 :	41(065)
R25 :	74(116)
R26 :	38(056)
R27 :	5E(094)
R28 :	5F(095)
R31 :	60(096)
R32 :	61(097)
R33 :	62(098)
R34 :	63(099)

R35 :	64(100)
R36 :	65(101)
R37 :	66(102)
R38 :	67(103)
R41 :	68(104)
R42 :	69(105)
R43 :	6A(106)
R44 :	6B(107)
R45 :	6C(108)
R46 :	6D(109)
R47 :	6E(110)
R48 :	6F(111)
R51 :	48(072)
R52 :	49(073)
R53 :	4A(074)
R54 :	4B(075)
R55 :	4C(076)
R56 :	4D(077)
R57 :	4E(078)
R58 :	4F(079)

## 1-2. System Common Messages

Status [Bin(Hex)]	Second [Bin(Hex)]	Third [Bin(Hex)]	Description
1111 0010 (F2)	0sss ssss (ss)	0ttt tttt (tt)	Song Position Pointer sss ssss : Least significant (LSB) ttt tttt : Most significant (MSB)
1111 0011 (F3)	0000 0000 (00)	0000 ssss (ss)	Song Select ssss:Song Number = 0~9

Transmitted when in Song mode (Internal Clock)

## 1-3. System Realtime Messages

Status [Bin(Hex)]	Description
1111 1000 (F8)	Timing Clock
1111 1010 (FA)	Start
1111 1011 (FB)	Continue
1111 1100 (FC)	Stop
1111 1110 (FE)	Active Sensing

Transmitted when in ARR PLAY/BSEQ/SONG/SONG PLAY/E.STYLE mode when "Clock Source" is Internal.

## 1-4. Universal System Exclusive Messages (Device Inquiry Reply)

Byte [Bin(Hex)]	Description
1111 0000 (F0)	Exclusive Status
0111 1110 (7E)	Non Realtime Message
0000 gggg (0g)	Global MIDI Channel
0000 0110 (06)	Inquiry Message
0000 0010 (02)	Identity Reply
0100 0010 (42)	KORG ID
0100 1001 (49)	i30 (Family Code LSB)
0000 0000 (00)	i30 (Family Code MSB)
0000 0000 (00)	MemberCode (LSB)
0000 0000 (00)	MemberCode (MSB)
0??? ???? (??)	Minor Version (LSB)
0??? ???? (??)	Minor Version (MSB)
0??? ???? (??)	Major Version (LSB)
0??? ???? (??)	Major Version (MSB)
1111 0111 (F7)	End of Exclusive

## 1-5. Structure of KORG System Exclusive Messages

1st Byte = 1111 0000 (F0) : Exclusive Status

2nd Byte = 0100 0010 (42) : KORG

3rd Byte = 0011 gggg (3g) : g:Global Ch.

4th Byte = 0100 1001 (49) : i30

5th Byte = 0fff ffff (ff) : Function Code

6th Byte = 0ddd dddd (dd) : Data

LastByte = 1111 0111 (F7) : End of Exclusive

## 1-6. KORG System Exclusive Message Transmitted Function Code List

5th Byte [Bin(Hex)]	Description	
0100 0010 (42)	Mode Data	R
0100 1110 (4E)	Mode Change	C
0100 0000 (40)	Current Program Parameter Dump	R
0101 0010 (52)	Current Drum Program Parameter Dump	R
0110 0100 (64)	ARR(All Arrangement) Dump	R,D
0110 1000 (68)	ARG(Arrangement Global) Dump	R,D
0110 1001 (69)	ARK(All KBD Set) Dump	R,D
0100 1100 (4C)	PRG(All Program) Dump	R,D
0101 0001 (51)	GBL(Global) Dump	R,D
0110 0101 (65)	STY(Style Block) Dump	R,D
0110 0110 (66)	BSQ(All Backing Sequence) Dump	R,D
0100 1000 (48)	SNG(All Song) Dump	R,D
0010 0101 (26)	Received Message Format Error	R,E
0010 0001 (21)	Write Completed	E
0010 0010 (22)	Write Error	E
0010 0011 (23)	Data Load Completed(ACK)	E
0010 0100 (24)	Data Load Error(NAK)	E
0110 0111 (67)	Chord	

Transmitted when

R : Request message is received

C : Mode is Changed by switch

D : Data dump from Global mode

E : Exclusive message is received

## 2. Recognized Receive Data

## 2-1. Channel Messages

Status [Bin(Hex)]	Second [Bin(Hex,Dec)]	Third [Bin(Hex)]	Description [i30]	
1000 nnnn (8n)	0kkk kkkk (kk, kkk)	0100 0000 (40)	Note Off (*1)	A
1001 nnnn (9n)	0kkk kkkk (kk, kkk)	0000 0000 (00)	Note Off (*1)	A
1001 nnnn (9n)	0kkk kkkk (kk, kkk)	0VVV VVVV (VV)	Note On (*1)	A
			[Velocity]v=001~127 (Seq.:002~126 even number)	
1010 nnnn (An)	0kkk kkkk (kk, kkk)	0vvv vvvv (vv)	Poly Key Pressure [Recorded Sequence Data]	T, Q
1011 nnnn (Bn)	0000 0000 (00, 000)	0MMM MMMM (MM)	Bank Select MSB [for Program/Arrangement Change] (*2)	B
1011 nnnn (Bn)	0010 0000 (20, 032)	0LLL LLLL (LL)	Bank Select LSB [for Program/Arrangement Change] (*2)	B
1011 nnnn (Bn)	0000 0001 (01, 001)	0vvv vvvv (vv)	Modulation 1 [Joystick (+Y)]	C
1011 nnnn (Bn)	0000 0010 (02, 002)	0vvv vvvv (vv)	Modulation 2 [Joystick (-Y)]	C
1011 nnnn (Bn)	0000 0100 (04, 004)	0lxx xxxx (xx)	Foot Controller [KBD(Special)Scale On] xx=40~7F	C
		00xx xxxx (xx)	Foot Controller [KBD(Special)Scale Off=Normal Scale]	C
1011 nnnn (Bn)	0000 0110 (06, 006)	0vvv vvvv (vv)	Data Entry MSB [for RPN Parameter Edit] (*3)	C
1011 nnnn (Bn)	0010 0110 (26, 038)	0vvv vvvv (vv)	Data Entry LSB [for RPN Parameter Edit] (*3)	C
1011 nnnn (Bn)	0000 0111 (07, 007)	0vvv vvvv (vv)	Volume [Volume]	C
1011 nnnn (Bn)	0000 1010 (0A, 010)	0vvv vvvv (vv)	Panpot [Pan]	C
1011 nnnn (Bn)	0000 1011 (0B, 011)	0vvv vvvv (vv)	Expression [Expression (invisible)]	C
1011 gggg (Bg)	0000 1100 (0C, 012)	0vvv vvvv (vv)	Effect Control 1 [Dynamic Modulation Source=CC#12]	C
1011 gggg (Bg)	0000 1101 (0D, 013)	0vvv vvvv (vv)	Effect Control 2 [Dynamic Modulation Source=CC#13]	C
1011 nnnn (Bn)	0100 0000 (40, 064)	0lxx xxxx (xx)	Damper Pedal On [Damper Pedal] xx=40~7F	C
		00xx xxxx (xx)	Damper Pedal Off [Damper Pedal] xx=00~3F	C
1011 nnnn (Bn)	0100 1000 (48, 072)	0vvv vvvv (vv)	Release Time [Release time (invisible)] (*4)	C
1011 nnnn (Bn)	0100 1001 (49, 073)	0vvv vvvv (vv)	Attack Time [Attack time (invisible)] (*4)	C
1011 nnnn (Bn)	0100 1010 (4A, 074)	0vvv vvvv (vv)	Brightness [Brightness (invisible)] (*4)	C
1011 nnnn (Bn)	0101 1011 (5B, 091)	0vvv vvvv (vv)	Effect 1 Depth [C Send Level]	C
1011 nnnn (Bg)	0101 1100 (5C, 092)	0xxx xxxx (xx)	Effect 2 Depth [FX 1 (ACC FX 1)On] xx=01~7F	C
		0000 0000 (00)	Effect 2 Depth [FX 1 (ACC FX 1)Off]	C
1011 nnnn (Bn)	0101 1101 (5D, 093)	0vvv vvvv (vv)	Effect 3 Depth [D Send Level]	C
1011 nnnn (Bg)	0101 1110 (5E, 094)	0xxx xxxx (xx)	Effect 4 Depth [FX 2 (ACC FX 2)On] xx=01~7F	C
		0000 0000 (00)	Effect 4 Depth [FX 2 (ACC FX 2)Off]	C
1011 nnnn (Bn)	0110 0100 (64, 100)	0000 00rr (rr)	RPN Parameter Number (LSB) (*3)	C
1011 nnnn (Bn)	0110 0101 (65, 101)	0000 0000 (00)	RPN Parameter Number (MSB) (*3)	C
1011 nnnn (Bn)	0111 1000 (78, 120)	0000 0000 (00)	All Sound Off	C
1011 nnnn (Bn)	0111 1001 (79, 121)	0000 0000 (00)	Reset All Controllers	C
1011 nnnn (Bn)	0ccc cccc (cc, ccc)	0vvv vvvv (vv)	Control Data [for Seq.Recording] ccc=000~127	C
1011 nnnn (Bg)	0111 1010 (7A, 122)	0111 1111 (7F)	Local Control On	A
		0000 0000 (00)	Local Control Off	
1011 nnnn (Bn)	0111 1011 (7B, 123)	0000 0000 (00)	All Notes Off	A
1011 nnnn (Bn)	0111 1100 (7C, 124)	0000 0000 (00)	Omni Mode Off [All Notes Off]	A
1011 nnnn (Bn)	0111 1101 (7D, 125)	0000 0000 (00)	Omni Mode On [All Notes Off]	A
1011 nnnn (Bn)	0111 1110 (7E, 126)	000m mmmmm (mm)	Mono Mode On [All Notes Off] mm=00~10	A
1011 nnnn (Bn)	0111 1111 (7F, 127)	0000 0000 (00)	Poly Mode On [All Notes Off]	A
1100 nnnn (Cn)	0ppp pppp (pp, ppp)	----	Program Change [Program/Arrangement Number] (*2)	P
1101 nnnn (Dn)	0vvv vvvv (vv, vvv)	----	Channel Pressure [Aftertouch]	T
1110 nnnn (En)	0bbb bbbb (bb, bbb)	0bbb bbbb (bb)	Pitch Bend [Joystick (X)]	C

nnnn:MIDI Channel Number 0~15 [1~16], Program Mode - Global Channel

gggg:Always Global Channel

vvvv:Value x:Don't care

A :Always Enabled

C :Enabled when "Enable Control Change" in Global Mode is Checked

P :Enabled when "Enable Program Chanbe" in Global Mode is Checked

B :Enabled when "Enable Bank Chanbe" in Global Mode is Checked

T :Enabled when "Enable Aftertouch" in Global Mode is Checked

Q :Enabled when Sequencer is Playing(Transmit), Recording(Receive)

(\*1)-----+

Key=[Hex,Dec]

G 9 = 7F,127  
 C 9 = 78,120  
 C 8 = 6C,108  
 C 7 = 60,096  
 C 6 = 54,084  
 C 5 = 48,072  
 C 4 = 3C,060  
 C 3 = 30,048  
 C 2 = 24,036  
 C 1 = 18,024  
 C 0 = 0C,012  
 C#-1= 01,001  
 C-1 = 00,000

(\*3)-----+

RPN

PitchBend Sens. [PitchBend Range]

CC#101=000 (Bn 65 00)

CC#100=000 (Bn 64 00)

CC#006=000~127 (Bn 06 00~7F)

(\*net=000~012 : +00~+12)

CC#038=ignore

Fine Tune [Detune]

CC#101=000 (Bn 65 00)

CC#100=001 (Bn 64 01)

CC#006=000~127 (Bn 06 00~7F)

CC#038=000~127 (Bn 26 00~7F)

(\*net=032,081~064,000~096,000

: -50 ~ +00 ~ +50 )

ARR PLAY/B.SEQ/SONG/SONG PLAY/E.STYLE

(\*2)-----+

MIDI IN	[Dec(Hex)]	:i30
MM , LL , pp	=000(00),000(00),000~063(00~3F)	: A11~A88
	=056(38),000(00),000~063(00~3F)	
MM , LL , pp	=000(00),000(00),064~127(40~7F)	: B11~B88
	=056(38),000(00),064~127(40~7F)	
MM , LL , pp	=000(00),001(01),000~063(00~3F)	: C11~C88
MM , LL , pp	=000(00),001(01),064~127(40~7F)	: D11~D88
MM , LL , pp	=000(00),002(02),000~063(00~3F)	: E11~E88
MM , LL , pp	=000(00),003(03),000~063(00~3F)	: F11~F88
MM , LL , pp	=000(00),003(03),064~127(40~7F)	: G11~G88
MM , LL , pp	=000(00),004(04),ppp(pp)	: R Bank
	=062(3E),000(00),ppp(pp)	
(GM Kit 1)	,000 (00)	: R11
(GM Kit 2)	,001 (01)	: R12
	,002~007(02~07)	: R11
(Room Kit)	,008~015(08~0F)	: R13
(Power Kit)	,016~023(10~17)	: R14
(Electronic Kit)	,024 (18)	: R15
(Analog Kit)	,025 (19)	: R16
(Dance Kit)	,026 (1A)	: R17
	,027~031(1B~1F)	: R15
(Jazz Kit)	,032~039(20~27)	: R18
(Brush Kit)	,040~047(28~2F)	: R21
(Orchestra Kit)	,048~055(30~37)	: R22
(SFX Kit)	,056~063(38~3F)	: R26
(Percussion Kit)	,064 (40)	: R23
(Latin Perc. Kit)	,065 (41)	: R24
	,066~071(42~47)	: R23
(User Kit 1)	,072 (48)	: R51
(User Kit 2)	,073 (49)	: R52
(User Kit 3)	,074 (4A)	: R53
(User Kit 4)	,075 (4B)	: R54
(User Kit 5)	,076 (4C)	: R55

act as Chennel's Transpose.	(User Kit 7)	,077 (4D) : R56
GLOBAL (User Kit 6)	(User Kit 8)	,078 (4E) : R57
When received Global MIDI Channel,		,079 (4F) : R58
act as "Master Tune"(Global Mode)		,080~093(50~5D) : R11~R26
-----	(Techno Kit)	,094 (5E) : R27
Coarse Tune [Transpose]	(Rock Kit)	,095 (5F) : R28
CC#101=000 (Bn 65 00)	(i30 Perc. Kit)	,096 (60) : R31
CC#100=002 (Bn 64 02)	(i30 Latin Perc.)	,097 (61) : R32
CC#006=000~127 (Bn 06 00~7F)	(GM Kit 3)	,098 (62) : R33
(*net=040~064~088	(Ballad Kit)	,099 (63) : R34
: +24~+00~+24)	(Jazz Kit 2)	,100 (64) : R35
CC#038=ignore	(R & B Kit)	,101 (65) : R36
at every Note On	(Techno Kit2)	,102 (66) : R37
-----	(Brush Kit 2)	,103 (67) : R38
	(Lo-Fi Kit)	,104 (68) : R41
	(Pop Kit)	,105 (69) : R42
	(i30 Rock Kit)	,106 (6A) : R43
	(Defness Kit)	,107 (6B) : R44
(*4)-----	(Drum'n'Bass Kit)	,108 (6C) : R45
vv=000~063(00~3F) : Fast or Dark	(Analog Kit 2)	,109 (6D) : R46
vv=064(40) : No Change	(Kicks & Snares)	,110 (6E) : R47
vv=065~127(41~7F) : Slow or Bright	(Tom & HH & Sym)	,111 (6F) : R48
-----		,112~115(70~73) : R11
	(Arabian Kit)	,116 (74) : R25
		,117~127(75~7F) : R11
		-----

## 2-2.System Common Messages

Status [Bin(Hex)]	Second [Bin(Hex)]	Third [Bin(Hex)]	Description
1111 0010 (F2)	0sss ssss (ss)	0ttt tttt (tt)	Song Position Pointer sss ssss : Least significant (LSB) ttt tttt : Most significant (MSB)
1111 0011 (F3)	0000 0000 (00)	0000 ssss (ss)	Song Select ssss:Song Number = 0~9

These messages are received when "Clock Source" is External and Sequencer stop.

(ex.)If all measure's "Meter" are 4/4.

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F2 ss tt : Measure.Beat.Tick
F2 00 00 : 001.1.00
F2 01 00 : 001.1.24 (6 MIDI Clock)
F2 10 00 : 002.1.00 (96 MIDI Clock)
F2 20 00 : 003.1.00
|
F2 00 01 : 009.1.00
|
F2 60 7C : 999.1.00

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## 2-3.System Realtime Messages

Status [Bin(Hex)]	Description
1111 1000 (F8)	Timing Clock
1111 1010 (FA)	Start
1111 1011 (FB)	Continue
1111 1100 (FC)	Stop
1111 1110 (FE)	Active Sensing

Received in ARR PLAY/BSEQ/SONG/E.STYLE mode when "Clock Source" is External.

2-4.Universal System Exclusive Message (Non Realtime)  
Inquiry Message Request

Byte [Bin(Hex)]	Description
1111 0000 (F0)	Exclusive Status
0111 1110 (7E)	Non Realtime Message
0ggg gggg (gg)	Global MIDI Channel
0000 0110 (06)	General Information (Sub ID 1)
0000 0001 (01)	Identity Request (Sub ID 2)
1111 0111 (F7)	End of Exclusive (EOX)

gg = 00~0F :Received if Global Channel  
7F :Received on any Channel

General MIDI Mode ON

Byte [Bin(Hex)]	Description
1111 0000 (F0)	Exclusive Status
0111 1110 (7E)	Non Realtime Message
0ggg gggg (gg)	Global MIDI Channel
0000 1001 (09)	General MIDI Message (Sub ID 1)
0000 0001 (01)	General MIDI On (Sub ID 2)
1111 0111 (F7)	End of Exclusive (EOX)

Received in SONG PLAY mode except when Sequencer playing.

2-5.Universal System Exclusive Message (Realtime)  
Master Volume

Byte [Bin(Hex)]	Description
1111 0000 (F0)	Exclusive Status
0111 1111 (7F)	Realtime Message
0ggg gggg (gg)	Global MIDI Channel
0000 0100 (04)	Device Control (Sub ID 1)
0000 0001 (01)	Master Volume (Sub ID 2)
0vvv vvvv (vv)	Value(LSB)
0mmm mmmm (mm)	Value(MSB)
1111 0111 (F7)	End of Exclusive (EOX)

mm,vv=00,00 ~ 7F,7F : Min ~ Max

#### Master Balance

Byte [Bin(Hex)]	Description
1111 0000 (F0)	Exclusive Status
0111 1111 (7F)	Realtime Message
0ggg gggg (gg)	Global MIDI Channel
0000 0100 (04)	Device Control (Sub ID 1)
0000 0010 (02)	Master Balance (Sub ID 2)
0vvv vvvv (vv)	Value(LSB)
0mmm mmmm (mm)	Value(MSB)
1111 0111 (F7)	End of Exclusive (EOX)

mm,vv=00,00 ~ 40,00 ~ 7F,7F : Left ~ Center ~ Right

## 2-6.KORG System Exclusive Message Received Function Code List

5th Byte [Bin(Hex)]	Description	
0100 0010 (12)	Mode Request	A,r-42
0100 1110 (4E)	Mode Change	A,r-23
0001 0000 (10)	Program Parameter Dump Request	P,r-40
0000 1101 (0D)	Drum Program Parameter Dump Request	P,r-52
0011 0000 (30)	ARR(All Arrangement) Dump Request	M,r-64
0011 0011 (33)	ARG(Arrangement Global) Dump Request	M,r-68
0011 0100 (34)	ARK(All KBD Set) Dump Request	M,r-69
0001 1100 (1C)	PRG(All Program) Dump Request	M,r-4C
0000 1110 (0E)	GBL(Global) Dump Request	M,r-51
0011 0001 (31)	STY(Style Block) Dump Request	M,r-65
0011 0010 (32)	BSQ(All Backinh Sequence) Dump Request	M,r-66
0001 1000 (18)	SNG(All Song) Dump Request	M,r-48
0100 0000 (40)	Current Program Parameter Dump	P,r-23
0101 0010 (52)	Current Drum Program Parameter Dump	P,r-23
0110 0100 (64)	ARR(All Arrangement) Dump	G,r-23
0110 1000 (68)	ARG(Arrangement Global) Dump	G,r-23
0110 1001 (69)	ARK(All KBD Set) Dump	G,r-23
0100 1100 (4C)	PRG(All Program) Dump	G,r-23
0101 0001 (51)	GBL(Global) Dump	G,r-23
0110 0101 (65)	STY(Style Block) Dump	G,r-23
0110 0110 (66)	BSQ(All Backing Sequence) Dump	G,r-23
0100 1000 (48)	SNG(All Song) Dump	G,r-23
0100 0001 (41)	Program Parameter Change	P,r-23
0101 0011 (53)	Drum Program Parameter Change	P,r-23
0001 0001 (11)	Program & Drum Program Write Request	P,r-21
0110 0111 (67)	Chord	A

#### Received when

G : "Receive Dumped Data" dialog is opened.  
M : "Filter,MIDI" page is opened.  
P : in Program mode.  
A : in All mode.  
r-XX : Reply Function Number  
(Transmitted after the message has been received.)

## 3.MIDI Exclusive Format (R:Receive, T:Transmit)

Please see 1-5 "Structure of KORG System Exclusive Messages"

### (1) Mode Request

R,-

Byte	Description
F0,42,3g,49	i30 Exclusive Header g;Global Channel [Hex]
0001 0010 (12)	MODE REQUEST
1111 0111 (F7)	End of Exclusive (EOX)

Receives this message, and transmits MODE DATA(42) message.

### (2) Mode Data

-,T

Byte	Description
F0,42,3g,49	i30 Exclusive Header g;Global Channel [Hex]
0100 0010 (42)	MODE DATA
0000 mmmm (0m)	Mode
0000 0000 (00)	
1111 0111 (F7)	End of Exclusive (EOX)

0m=0A :ARR PLAY  
=0B :BACKING SEQ  
=06 :SONG  
=05 :SONG PLAY  
=02 :PROGRAM  
=09 :E.STYLE  
=04 :GLOBAL  
=08 :DISK

Receives MODE REQUEST(12) message, and transmits this message and data.

## (3) Mode Change R,T

Byte	Description
F0,42,3g,49	i30 Exclusive Header g;Global Channel [Hex]
0100 1110 (4E)	MODE CHANGE
0000 mmmm (0m)	Mode
1111 0111 (F7)	End of Exclusive (EOX)

0m=0A :ARR PLAY  
 =0B :BACKING SEQ  
 =06 :SONG  
 =05 :SONG PLAY  
 =02 :PROGRAM  
 =09 :E.STYLE  
 =04 :GLOBAL  
 =08 :DISK

Receives this message and data, changes the Mode. When the mode is changed by switch, this message and data is transmitted. At the same time "i-series" ID(39) is transmitted for "ih".

## (4) ARR(All Arrangement) Dump Request R,-

Byte	Description
F0,42,3g,49	i30 Exclusive Header g;Global Channel [Hex]
0011 0000 (30)	ARR DUMP REQUEST
1111 0111 (F7)	End of Exclusive (EOX)

Receives this message, and transmits ARR DUMP(64) message.

## (5) ARG(Arrangement Global) Dump Request R,-

Byte	Description
F0,42,3g,49	i30 Exclusive Header g;Global Channel [Hex]
0011 0011 (33)	ARG DUMP REQUEST
1111 0111 (F7)	End of Exclusive (EOX)

Receives this message, and transmits ARG DUMP(64) message.

## (6) ARK(All KBD Set) Dump Request R,-

Byte	Description
F0,42,3g,49	i30 Exclusive Header g;Global Channel [Hex]
0011 0100 (34)	ARK DUMP REQUEST
1111 0111 (F7)	End of Exclusive (EOX)

Receives this message, and transmits ARK DUMP(69) message.

## (7) PRG(All Program) Dump Request R,-

Byte	Description
F0,42,3g,49	i30 Exclusive Header g;Global Channel [Hex]
0001 1100 (1C)	PRG DUMP REQUEST
1111 0111 (F7)	End of Exclusive (EOX)

Receives this message, and transmits PRG DUMP(4C) message.

## (8) GBL(Global) Dump Request R,-

Byte	Description
F0,42,3g,49	i30 Exclusive Header g;Global Channel [Hex]
0000 1110 (0E)	GBL DUMP REQUEST
1111 0111 (F7)	End of Exclusive (EOX)

Receives this message, and transmits GBL DUMP(51) message.

## (9) STY(Style Block) Dump Request R,-

Byte	Description
F0,42,3g,49	i30 Exclusive Header g;Global Channel [Hex]
0011 0001 (31)	STY DUMP REQUEST
0000 bbbb (0b)	Style Block Number : 1~12 0b:00~0B
1111 0111 (F7)	End of Exclusive (EOX)

Receives this message, and transmits STY DUMP(65) message.

## (10) BSQ(All Backing Sequence) Dump Request R,-

Byte	Description
F0,42,3g,49	i30 Exclusive Header g;Global Channel [Hex]
0011 0010 (32)	BSQ DUMP REQUEST
1111 0111 (F7)	End of Exclusive (EOX)

Receives this message, and transmits BSQ DUMP(66) message.

## (11) SNG(All Song) Dump Request R,-

Byte	Description
F0,42,3g,49	i30 Exclusive Header g;Global Channel [Hex]
0001 1000 (18)	SNG DUMP REQUEST
1111 0111 (F7)	End of Exclusive (EOX)

Receives this message, and transmits SNG DUMP(48) message.

## (12) Program Parameter Dump Request R,-

Byte	Description
------	-------------

F0,42,3g,49	i30 Exclusive Header g;Global Channel [Hex]
0001 0000 (10)	PROGRAM PARAMETER DUMP REQUEST
1111 0111 (F7)	End of Exclusive (EOX)

Receives this message, and transmits CURRENT PROGRAM PARAMETER(40).

(13) Drum Program Parameter Dump Request		R,-
Byte	Description	
F0,42,3g,49	i30 Exclusive Header g:Global Channel [Hex]	
0000 1101 (0D)	DRUM PROGRAM PARAMETER DUMP REQUEST	
1111 0111 (F7)	End of Exclusive (EOX)	

Receives this message, and transmits CURRENT DRUM PROGRAM PARAMETER(52).

(14) ARR(All Arrangement) Dump		R,T
Byte	Description	
F0,42,3g,49	i30 Exclusive Header g;Global Channel [Hex]	
0110 0100 (64)	ARR DUMP	
0ddd dddd (dd)	Data	
1111 0111 (F7)	End of Exclusive (EOX)	

Receives ARR DUMP REQUEST(30) message, and transmits this message & data.  
Transmits this message & data when "Dump Arrangements" is executed.

NOTE 1:DUMP DATA CONVERT

Data <-> MIDI Data

```
*** Data (1set = 8bit x 7Byte) *****
*   b7       b0       b7       b0       b7       b0       b7       *
*   |Y|X|X|X|X|X|X|X|   |Y|X|X|X|X|X|X|   |Y|X|X|...|X|X|X|   |Y|X|X|X|X|X|X|X|   *
*           7n+0           7n+1           7n+2 ... 7n+5           7n+6           *
*****
*** MIDI Data (1 Set = 7bit x 8Byte) *****
*   b7b7b7b7b7b7b7b7   b6       b0       b6       b0       b6       b0       *
*   |0|Y|Y|Y|Y|Y|Y|Y|   |0|X|X|X|X|X|X|X|   |0|X|X|...|X|X|X|   |0|X|X|X|X|X|X|X|X|   *
*           7n+6,5,4,3,2,1,0           7n+0           7n+1 ... 7n+5           7n+6           *
*****
```

NOTE 2:ARR DUMP FORMAT

[Arrangement C11],...,[Arrangement D88]

Data: 164 x 128 = 20992[Byte]

MIDI: 7x2998+6=20992 -> 8\*2998+(1+6)=23991[Byte]

(15) ARG(Arrangement Global) Dump		R,T
Byte	Description	
F0,42,3g,49	i30 Exclusive Header g;Global Channel [Hex]	
0110 1000 (68)	ARG DUMP	
0ddd dddd (dd)	Data	
1111 0111 (F7)	End of Exclusive (EOX)	

Receives ARG DUMP REQUEST(33) message, and transmits this message & data.  
Transmits this message & data when "Dump Arrangement Global" is executed.

NOTE 3:ARG DUMP FORMAT

Data: 48[Byte]

MIDI: 7x6+6=48 -> 8x6+(1+6)=55[Byte]

(16) ARK(All KBD Set) Dump		R,T
Byte	Description	
F0,42,3g,49	i30 Exclusive Header g;Global Channel [Hex]	
0110 1001 (69)	ARK DUMP	
0ddd dddd (dd)	Data	
1111 0111 (F7)	End of Exclusive (EOX)	

Receives ARK DUMP REQUEST(34) message, and transmits this message & data.  
Transmits this message & data when "Dump KBD Sets" is executed.

NOTE 4:ARK DUMP FORMAT

[KBD SET 11],...,[KBD SET 88]

Data: 56 x 64 = 3584[Byte]

MIDI: 7x512=3584 -> 8x512=4096[Byte]

(17) PRG(All Program) Dump		R,T
Byte	Description	
F0,42,3g,49	i30 Exclusive Header g;Global Channel [Hex]	
0100 1100 (4C)	PRG DUMP	
0ddd dddd (dd)	Data	
1111 0111 (F7)	End of Exclusive (EOX)	

Receives PRG DUMP REQUEST(1C) message, and transmits this message & data.  
Transmits this message & data when "Dump Programs" is executed.

NOTE 5:PRG DUMP FORMAT

[Program F11],...,[Program G88]

,[Program R51],...,[Program R58]

,[Drum Kit R51],...,[Drum Kit R58]

Data: 172 x 128 + 172 x 8 + 880 x 8 = 30432[Byte]

MIDI: 7x4347+3=30432 -> 8x4347+(1+3)=34780

(18) GBL(Global) Dump		R,T
Byte	Description	
F0,42,3g,49	i30 Exclusive Header g;Global Channel	[Hex]
0101 0001 (51)	GBL DUMP	

0ddd dddd (dd)	Data
1111 0111 (F7)	End of Exclusive (EOX)

Receives GBL DUMP REQUEST(0E) message, and transmits this message & data.  
Transmits this message & data when "Dump Global Setting" is executed.

NOTE 6:GBL DUMP FORMAT

Data: 416[Byte]  
MIDI:  $7 \times 59 + 3 = 416 \rightarrow 8 \times 59 + (1 + 3) = 476$

(19) STY(Style Block) Dump R,T

Byte	Description
F0,42,3g,49	i30 Exclusive Header g;Global Channel [Hex]
0110 0101 (65)	STY DUMP
0000 bbbb (0b)	Style Block Number : 1~12 0b:00~0B
0ddd dddd (dd)	Data
1111 0111 (F7)	End of Exclusive (EOX)

Receives STY DUMP REQUEST(31) message, and transmits this message & data.  
Transmits this message & data when "Dump Styles" is executed.

NOTE 7:STY DUMP FORMAT

[Style C11],...,[Style C68]  
Style Header (Block 1:C11~14...32[Byte])  
Style Data (Block 1:C11~14...1176 x 4 + Seq.Data[Byte])  
Min Data:  $32 + 1176 \times 4 + \text{Seq.Data} = 4704$ [Byte]  
MIDI:  $7 \times 672 = 4704 \rightarrow 8 \times 672 = 5376$   
Max Data:  $32 + 1176 \times 4 + \text{Seq.Data} = 65504$ [Byte]  
MIDI:  $7 \times 9357 + 5 = 65504 \rightarrow 8 \times 9357 + (1 + 5) = 74862$   
Style Header (Block 2:C15~18...32[Byte])  
Style Data (Block 2:C15~18...1176 x 4 + Seq.Data[Byte])  
|  
Style Header (Block12:C65~68...32[Byte])  
Style Data (Block12:C65~68...1176 x 4 + Seq.Data[Byte])

(20) BSQ(All Backing Sequence) Dump R,T

Byte	Description
F0,42,3g,49	i30 Exclusive Header g;Global Channel [Hex]
0110 0110 (66)	BSQ DUMP
0sss ssss (ss)	Backing Sequence Data Size(LSB:bit 6~0)
0sss ssss (ss)	Backing Sequence Data Size(MSB:bit13~7)
0ddd dddd (dd)	Control Data
0ddd dddd (dd)	Backing Sequence Data
1111 0111 (F7)	End of Exclusive (EOX)

Receives BSQ DUMP REQUEST(32) message, and transmits this message & data.  
Transmits this message & data when "Dump Backing Sequences" is executed.

NOTE 8:BSQ DUMP FORMAT

[Backing SEQ 0],...,[Backing SEQ 9]  
Backing Sequence Data Size  
4 step = 16 Byte = 1 size  
Backing Sequence Control Data (2642[Byte])  
Backing Sequence Data  
[BSEQ 1st Data(4 Byte)],...,[BSEQ nth Data]  
n:BSEQ Data Step = 0~65536  
Data:  $2642 + 4 \times [\text{BSEQ Data Step}]$   
MIDI:  $= 7 \times A + B \rightarrow B = 1 \sim 7 \dots 8 \times A + (1 + B), B = 0 \dots 8 \times A$

(21) SNG(All Song) Dump R,T

Byte	Description
F0,42,3g,49	i30 Exclusive Header g;Global Channel [Hex]
0100 1000 (48)	SNG DUMP
0sss ssss (ss)	Song Data Size
0ddd dddd (dd)	Control Data
0ddd dddd (dd)	Song Data
1111 0111 (F7)	End of Exclusive (EOX)

Receives SNG DUMP REQUEST(18) message, and transmits this message & data.  
Transmits this message & data when "Dump Songs" is executed.

NOTE 9:SNG DUMP FORMAT

[Song 0],...,[Song 9]  
Song Data Size  
4 step = 16 Byte = 1 size  
Song Control Data (3922[Byte])  
Song Data  
[Song 1st Data(4 Byte)],...,[Song nth Data]  
n:BSEQ Data Step = 0~65536  
Data:  $3922 + 4 \times [\text{Song Data Step}]$   
MIDI:  $= 7 \times A + B \rightarrow B = 1 \sim 7 \dots 8 \times A + (1 + B), B = 0 \dots 8 \times A$

(22) Current Program Parameter Dump R,T

Byte	Description
F0,42,3g,49	i30 Exclusive Header g;Global Channel [Hex]
0100 0000 (40)	CURRENT PROGRAM PARAMETER DUMP
0ddd dddd (dd)	Data
1111 0111 (F7)	End of Exclusive (EOX)

Receives PROGRAM PARAMETER DUMP REQUEST(10) message,  
and transmits this message & data.

NOTE 10:Current Program Parameter DUMP FORMAT

[Parameter No.000],...,[Parameter No.171]  
Data: 172[Byte]  
MIDI:  $= 7 \times 24 + 4 = 172 \rightarrow 8 \times 24 + (1 + 4) = 197$



## (23) Current Drum Program Parameter Dump R,T

Byte	Description
F0,42,3g,49	i30 Exclusive Header g;Global Channel [Hex]
0101 0010 (52)	CURRENT DRUM PROGRAM PARAMETER DUMP
0ddd dddd (dd)	Data
1111 0111 (F7)	End of Exclusive (EOX)

Receives DRUM PROGRAM PARAMETER DUMP REQUEST(0D) message,  
and transmits this message & data.

NOTE 11:Current Drum Program Parameter DUMP FORMAT  
[Prog.Parameter No.000],...,[Prog.Parameter No.171]  
[Drum Kit Parameter No.000],...,[Drum Kit Parameter No.879]  
Data: 172+880=1052[Byte]  
MIDI: =7x150+2=1052 -> 8x150+(1+2)=1203

## (24) Program Parameter Change R,-

Byte	Description
F0,42,3g,49	i30 Exclusive Header g;Global Channel [Hex]
0100 0001 (41)	PROGRAM PARAMETER CHANGE
0000 0000 (00)	Reserve
0ppp pppp (pp)	Parameter Number (LSB bit 6~0)
0ppp pppp (pp)	Parameter Number (MSB bit13~7)
0vvv vvvv (vv)	Value (LSB bit 6~0)
0vvv vvvv (vv)	Value (MSB bit13~7)
1111 0111 (F7)	End of Exclusive (EOX)

See "PROGRAM PARAMETERS" (except "FX PARAMETERS") .

NOTE 12:Parameter Number and Value Data Format  
Parameter Number,Parameter Value  

MSB	LSB
M5 M4 M3 M2 M1 M0	L7 L6 L5 L4 L3 L2 L1 L0

MIDI Data  

MSB	LSB
0 M5 M4 M3 M2 M1 M0 L7	0 L6 L5 L4 L3 L2 L1 L0

(Ex) " OSC 1 Multisample=298 "  
Param No.=020 (14 Hex), Value=298 (012A Hex)  
MIDI Data=F0,42,3g,49,41,00,14,00,2A,02,F7

## (25) Drum Program Parameter Change R,-

Byte	Description
F0,42,3g,49	i30 Exclusive Header g;Global Channel [Hex]
0101 0011 (53)	DRUM PROGRAM PARAMETER CHANGE
0000 0000 (00)	Reserve
0ppp pppp (pp)	Parameter Number (LSB bit 6~0)
0ppp pppp (pp)	Parameter Number (MSB bit13~7)
0vvv vvvv (vv)	Value (LSB bit 6~0)
0vvv vvvv (vv)	Value (MSB bit13~7)
1111 0111 (F7)	End of Exclusive (EOX)

See "PROGRAM PARAMETERS" "DRUM KIT PARAMETERS" (except "FX PARAMETERS") .

NOTE 13:[Prog.Parameter No.000]=[Prog.Parameter No.000]  
,...,[Prog.Parameter No.171]=[Prog.Parameter No.171]  
,[Drum Kit Parameter No.000]=[Prog.Parameter No.172]  
,...,[Drum Kit Parameter No.879]=[Prog.Parameter No.1051]  
(Ex) " Bb0 Drumsample=126 "  
Param No.=182 (B6 Hex), Value=126 (007F Hex)  
MIDI Data=F0,42,3g,49,53,00,36,01,7E,00,F7

## (26) Program &amp; Drum Program Write Request R,-

Byte	Description
F0,42,3g,49	i30 Exclusive Header g;Global Channel [Hex]
0001 0001 (11)	PROGRAM & DRUM PROGRAM WRITE REQUEST
0000 0bbb (0b)	Bank Number (03:FG, 04:DRUM)
0ppp pppp (pp)	Program Number (FG:00~7F, R:20~27)
1111 0111 (F7)	End of Exclusive (EOX)

## (27) Write Completed -,T

Byte	Description
F0,42,3g,49	i30 Exclusive Header g;Global Channel [Hex]
0010 0001 (21)	WRITE COMPLETED
1111 0111 (F7)	End of Exclusive (EOX)

## (28) Write Error -,T

Byte	Description
F0,42,3g,49	i30 Exclusive Header g;Global Channel [Hex]
0010 0010 (22)	WRITE ERROR
1111 0111 (F7)	End of Exclusive (EOX)

## (29) Received Message Format Error -,T

Byte	Description
F0,42,3g,49	i30 Exclusive Header g;Global Channel [Hex]

0010 0101 (26)	RECEIVED MESSAGE FORMAT ERROR
1111 0111 (F7)	End of Exclusive (EOX)

(30) Data Load Completed (ACK) - ,T

Byte	Description
F0,42,3g,49	i30 Exclusive Header g;Global Channel [Hex]
0010 0011 (23)	DATA LOAD COMPLETED (ACK)
1111 0111 (F7)	End of Exclusive (EOX)

(31) Data Load ERROR (NAK) - ,T

Byte	Description
F0,42,3g,49	i30 Exclusive Header g;Global Channel [Hex]
0010 0011 (23)	DATA LOAD ERROR (NAK)
1111 0111 (F7)	End of Exclusive (EOX)

(32) Chord - ,T

Byte	Description
F0,42,3g,39	i30 Exclusive Header g;Global Channel [Hex]
0110 0111 (67)	CHORD
0000 rrrr (0r)	Root (C:00 ~ B:0B)
0000 bbbb (0b)	Bass (C:00 ~ B:0B)
0ccc cccc (0c)	Chord Type (LSB)
000c cccc (0c)	Chord Type (MSB)
0ttt tttt (0t)	Tension note(s) (LSB)
000t tttt (0t)	Tension note(s) (MSB)
1111 0111 (F7)	End of Exclusive (EOX)

Note 14:CHORD Type

Chord Type	MSB B -A-G	LSB -FE -D-C
No Chord	0000 0000 (00)	0000 0000 (00)
dim	0000 0000 (00)	0100 1001 (49)
sus2	0000 0001 (01)	0000 0101 (05)
m	0000 0001 (01)	0000 1001 (09)
major	0000 0001 (01)	0001 0001 (11)
sus4	0000 0001 (01)	0010 0001 (21)
aug	0000 0010 (02)	0001 0001 (11)
m6	0000 0101 (05)	0000 1001 (09)
6	0000 0101 (05)	0001 0001 (11)
m7b5	0000 1000 (08)	0100 1001 (49)
7b5	0000 1000 (08)	0101 0001 (51)
m7	0000 1001 (09)	0000 1001 (09)
7sus4	0000 1001 (09)	0010 0001 (21)
aug7	0000 1010 (0A)	0001 0001 (11)
dimM7	0001 0000 (10)	0100 1001 (49)
M7b5	0001 0000 (10)	0101 0001 (51)
mM7	0001 0001 (11)	0000 1001 (09)
M7	0001 0001 (11)	0001 0001 (11)
M7sus4	0001 0001 (11)	0010 0001 (21)
augM7	0001 0010 (12)	0001 0001 (11)

Note 15:Tension Note(s)

Tension	MSB	LSB
b9	0000 0000 (00)	0000 0010 (00)
9	0000 0000 (00)	0000 0100 (04)
#9	0000 0000 (00)	0000 1000 (08)
11	0000 0000 (00)	0010 0000 (20)
#11	0000 0000 (00)	0100 0000 (40)
b13	0000 0010 (02)	0000 0000 (00)
13	0000 0100 (04)	0000 0000 (00)

#### 4.Parameter Tables

##### ARRANGEMENT PARAMETERS

No.	Parameter	Data(h)	Value
Arrangement C11 Parameters			
000	Arragement Name(1/16)	20~7E	" " ~ " ~" (ASCII Code)
001	Arragement Name(2/16)		
002	Arragement Name(3/16)		
003	Arragement Name(4/16)		
004	Arragement Name(5/16)		
005	Arragement Name(6/16)		
006	Arragement Name(7/16)		
007	Arragement Name(8/16)		
008	Arragement Name(9/16)		
009	Arragement Name(10/16)		
010	Arragement Name(11/16)		
011	Arragement Name(12/16)		
012	Arragement Name(13/16)		
013	Arragement Name(14/16)		

014	Arrangement Name(15/16)			
015	Arrangement Name(16/16)			
016	Arrangement Category	00~0F	8 Beat~User 4	
017	Style No.	00~7F		[Style No.][Style Bank]
018	Style Bank	00,01		Bank=00,No.=00~7F : A11~A88~B88
019	Initial Variation(1/2)	00~03	Var.1~4	Bank=01,No.=00~2F : C11~C68
020	Initial Variation(2/2)		00:->Var.1~4	
	(b3)Fill	0,1	04:Intro 1	
	(b2)Intro	0,1	05:Intro 2	
	(b1)...Reserve	-----	08:Fill 1	
	(b0)1 or 2	0,1	09:Fill 2	
021	Initial Tempo	0A~D2	40~240	
022	FULL KBD PLAY	00,01	Off,On	
023	Split Point	24~60	C2~C7	
024	Ensemble Type	00~09	Duet~Brass Ens.	
025	Transpose	F5~0B	-11~+11	
026	...Reserve	-----	-----	
027	...Reserve	-----	-----	
028	Chord Scan Parameters			
	(b7)...Reserve	-----	-----	
	(b6)...Reserve	-----	-----	
	(b5)...(Lower Type)	(0,1)	(Normal,Easy)	"Lower type" is effective at first released system.
	(b4)...Reserve	-----	-----	
	(b3)...Reserve	-----	-----	
	(b2)...Reserve	-----	-----	
	(b1)Chord Scan Upper	0,1	Off,On	[Chord Scanning]
	(b0)Chord Scan Lower	0,1	Off,On	00:Off 02:Upper
029	Var.1 Default Drum Map	00~07	Map 1~8	01:Lower 03:FULL
030	Var.2 Default Drum Map	00~07	Map 1~8	
031	Var.3 Default Drum Map	00~07	Map 1~8	
032	Var.4 Default Drum Map	00~07	Map 1~8	
033	Kick Designation	00~03	A~D	
034	Snare Designation	00~03	A~D	[Fill 1][Fill 2]
035	...Reserve	-----	-----	00:Off 07:1<->4
036	...Reserve	-----	-----	01:->1 08:2<->3
037	Fill 1(Var.Change)	00~0C	Off~Down	02:->2 09:2<->4
038	Fill 2(Var.Change)	00~0C	Off~Down	03:->3 0A:3<->4
				04:->4 0B:Up
				05:1<->2 0C:Down
				06:1<->3
-----				
DRUMS PARAMETERS				
-----				
039	Program No.	00~7F		
040	Program Bank	00~04		[Program No.][Program Bank]
041	Volume	00~7F	000~127	Bank=00,No.=00~7F : A11~A88~B88
042	Pan	FF~1F	Off~Prog	Bank=01,No.=00~7F : C11~C88~D88
043	(b7~b4)C Send Level	0~A	0~9,Prog	Bank=02,No.=00~3F : E11~E88
	(b3~b0)D Send Level	0~A	0~9,Prog	Bank=03,No.=00~7F : F11~F88~G88
044	...Reserve	-----	-----	Bank=04,No.=00~27 : R11~R58
045	Out Status			[Pan]
	(b7)...Reserve	-----	-----	FF : OFF
	(b6)...Reserve	-----	-----	00 : L15
	(b5)...Reserve	-----	-----	
	(b4)Synchro Backing	0,1	Off,On	0F : CNT
	(b3)...Reserve	-----	-----	
	(b2)Mute/Play	0,1	Play,Mute	1E : R15
	(b1)External Out	0,1	Off,On	1F : PROG
	(b0)Internal Out	0,1	Off,On	
046	...Reserve	-----	-----	
-----				
PERC PARAMETERS				
-----				
047	Program No.	00~7F		
048	Program Bank	00~04		
049	Volume	00~7F	000~127	
050	Pan	FF~1F	Off~Prog	
051	(b7~b4)C Send Level	0~A	0~9,Prog	
	(b3~b0)D Send Level	0~A	0~9,Prog	
052	...Reserve	-----	-----	
053	Out Status			
	(b7)...Reserve	-----	-----	
	(b6)...Reserve	-----	-----	
	(b5)...Reserve	-----	-----	
	(b4)Synchro Backing	0,1	Off,On	
	(b3)...Reserve	-----	-----	
	(b2)Mute/Play	0,1	Play,Mute	
	(b1)External Out	0,1	Off,On	
	(b0)Internal Out	0,1	Off,On	
054	...Reserve	-----	-----	
-----				
BASS PARAMETERS				
-----				
055	Program No.	00~7F		
056	Program Bank	00~04		
057	Volume	00~7F	000~127	
058	Pan	FF~1F	Off~Prog	
059	(b7~b4)C Send Level	0~A	0~9,Prog	
	(b3~b0)D Send Level	0~A	0~9,Prog	
060	Octave	FE~02	-2~+2	
061	Out Status			
	(b7)...Reserve	-----	-----	
	(b6)...Reserve	-----	-----	
	(b5)...Reserve	-----	-----	
	(b4)Synchro Backing	0,1	Off,On	
	(b3)...Reserve	-----	-----	
	(b2)Mute/Play	0,1	Play,Mute	
	(b1)External Out	0,1	Off,On	
	(b0)Internal Out	0,1	Off,On	
062	Wrap-Around Point	FF~0B	Style~12	
-----				
ACC1 PARAMETERS				

063	Program No.	00~7F	
064	Program Bank	00~04	
065	Volume	00~7F	000~127
066	Pan	FF~1F	Off~Prog
067	(b7~b4)C Send Level	0~A	0~9, Prog
	(b3~b0)D Send Level	0~A	0~9, Prog
068	Octave	FE~02	-2~+2
069	Out Status		
	(b7)...Reserve	-----	-----
	(b6)...Reserve	-----	-----
	(b5)...Reserve	-----	-----
	(b4)Synchro Backing	0,1	Off, On
	(b3)...Reserve	-----	-----
	(b2)Mute/Play	0,1	Play, Mute
	(b1)External Out	0,1	Off, On
	(b0)Internal Out	0,1	Off, On
070	Wrap-Around Point	FF~0B	Style~12
-----			
ACC2 PARAMETERS			
-----			
071	Program No.	00~7F	
072	Program Bank	00~04	
073	Volume	00~7F	000~127
074	Pan	FF~1F	Off~Prog
075	(b7~b4)C Send Level	0~A	0~9, Prog
	(b3~b0)D Send Level	0~A	0~9, Prog
076	Octave	FE~02	-2~+2
077	Out Status		
	(b7)...Reserve	-----	-----
	(b6)...Reserve	-----	-----
	(b5)...Reserve	-----	-----
	(b4)Synchro Backing	0,1	Off, On
	(b3)...Reserve	-----	-----
	(b2)Mute/Play	0,1	Play, Mute
	(b1)External Out	0,1	Off, On
	(b0)Internal Out	0,1	Off, On
078	Wrap-Around Point	FF~0B	Style~12
-----			
ACC3 PARAMETERS			
-----			
079	Program No.	00~7F	
080	Program Bank	00~04	
081	Volume	00~7F	000~127
082	Pan	FF~1F	Off~Prog
083	(b7~b4)C Send Level	0~A	0~9, Prog
	(b3~b0)D Send Level	0~A	0~9, Prog
084	Octave	FE~02	-2~+2
085	Out Status		
	(b7)...Reserve	-----	-----
	(b6)...Reserve	-----	-----
	(b5)...Reserve	-----	-----
	(b4)Synchro Backing	0,1	Off, On
	(b3)...Reserve	-----	-----
	(b2)Mute/Play	0,1	Play, Mute
	(b1)External Out	0,1	Off, On
	(b0)Internal Out	0,1	Off, On
086	Wrap-Around Point	FF~0B	Style~12
-----			
MainKBD PARAMETERS			
-----			
087	Program No.	00~7F	
088	Program Bank	00~04	
089	Volume	00~7F	000~127
090	Pan	FF~1F	Off~Prog
091	(b7~b4)C Send Level	0~A	0~9, Prog
	(b3~b0)D Send Level	0~A	0~9, Prog
092	Octave	FE~02	-2~+2
093	Out Status		
	(b7)...Reserve	-----	-----
	(b6)Enable Damper Pedal	0,1	Off, On
	(b5)Enable Joystick X	0,1	Off, On
	(b4)...Reserve	-----	-----
	(b3)...Reserve	-----	-----
	(b2)Mute/Play	0,1	Play, Mute
	(b1)External Out	0,1	Off, On
	(b0)Internal Out	0,1	Off, On
094	...Reserve	-----	-----
-----			
SubKBD PARAMETERS			
-----			
095	Program No.	00~7F	
096	Program Bank	00~04	
097	Volume	00~7F	000~127
098	Pan	FF~1F	Off~Prog
099	(b7~b4)C Send Level	0~A	0~9, Prog
	(b3~b0)D Send Level	0~A	0~9, Prog
100	Octave	FE~02	-2~+2
101	Out Status		
	(b7)...Reserve	-----	-----
	(b6)Enable Damper Pedal	0,1	Off, On
	(b5)Enable Joystick X	0,1	Off, On
	(b4)...Reserve	-----	-----
	(b3)...Reserve	-----	-----
	(b2)Mute/Play	0,1	Play, Mute
	(b1)External Out	0,1	Off, On
	(b0)Internal Out	0,1	Off, On
102	...Reserve	-----	-----
-----			

LowerKBD PARAMETERS			
-----			
103	Program No.	00~7F	
104	Program Bank	00~04	
105	Volume	00~7F	000~127
106	Pan	FF~1F	Off~Prog
107	(b7~b4)C Send Level	0~A	0~9,Prog
	(b3~b0)D Send Level	0~A	0~9,Prog
108	Octave	FE~02	-2~+2
109	Out Status		
	(b7)...Reserve	-----	-----
	(b6)Enable Damper Pedal	0,1	Off,On
	(b5)Enable Joystick X	0,1	Off,On
	(b4)...Reserve	-----	-----
	(b3)...Reserve	-----	-----
	(b2)Mute/Play	0,1	Play,Mute
	(b1)External Out	0,1	Off,On
	(b0)Internal Out	0,1	Off,On
110	...Reserve	-----	-----
-----			
Harmony PARAMETERS			
-----			
111	Program No.	00~7F	
112	Program Bank	00~04	
113	Volume	00~7F	000~127
114	Pan	FF~1F	Off~Prog
115	(b7~b4)C Send Level	0~A	0~9,Prog
	(b3~b0)D Send Level	0~A	0~9,Prog
116	...Reserve	-----	-----
117	Out Status		
	(b7)...Reserve	-----	-----
	(b6)...Reserve	-----	-----
	(b5)...Reserve	-----	-----
	(b4)...Reserve	-----	-----
	(b3)...Reserve	-----	-----
	(b2)...Reserve	-----	-----
	(b1)External Out	0,1	Off,On
	(b0)Internal Out	0,1	Off,On
118	...Reserve	-----	-----
-----			
K.Bass PARAMETERS			
-----			
119	Program No.	00~7F	
120	Program Bank	00~04	
121	Volume	00~7F	000~127
122	Pan	FF~1F	Off~Prog
123	(b7~b4)C Send Level	0~A	0~9,Prog
	(b3~b0)D Send Level	0~A	0~9,Prog
124	...Reserve	-----	-----
125	Out Status		
	(b7)...Reserve	-----	-----
	(b6)...Reserve	-----	-----
	(b5)...Reserve	-----	-----
	(b4)...Reserve	-----	-----
	(b3)...Reserve	-----	-----
	(b2)...Reserve	-----	-----
	(b1)External Out	0,1	Off,On
	(b0)Internal Out	0,1	Off,On
126	...Reserve	-----	-----
-----			
127	Main Vel. Win. Top	01~7F	001~127
128	Main Vel. Win. Bottom	01~7F	001~127
129	Sub Vel. Win. Top	01~7F	001~127
130	Sub Vel. Win. Bottom	01~7F	001~127
131	Lower Vel. Win. Top	01~7F	001~127
132	Lower Vel. Win. Bottom	01~7F	001~127
133	KBD Scale Type	00~29	[Scale Type]
134	KBD Scale Key	00~0B	00:Equal Temperament ~29:User Scale 32 C,C#~Bb,B
-----			
ACC FX PARAMETERS			
-----			
135	FX 1 Type	00~2F	[FX 1/2 Type]
136	FX 2 Type	00~2F	0:NoEffect
137	FX 1 Dry/Wet Balance(L)	00~64	~2F:Delay/RotarySpeaker
138	FX 1 Dry/Wet Balance(R)	00~64	
139	FX 2 Dry/Wet Balance(L)	00~64	
140	FX 2 Dry/Wet Balance(R)	00~64	
141	Effect Output C Pan	00~65	[Effect Output C/D Pan]
142	Effect Output D Pan	00~65	When Placement is Parallel3
143	Effect I/O		No.141(bit7~4) FX 1 Return L : 0~9
	(b7)...Reserve	-----	No.141(bit3~0) FX 1 Return R : 0~9
	(b6)Placement(1/3)	0~5	No.142(bit7~4) FX 2 Return L : 0~9
	(b5)Placement(2/3)		No.142(bit3~0) FX 2 Return R : 0~9
	(b4)Placement(3/3)		
	(b3)Effect 2(R) On/Off	0,1	[Placement]
	(b2)Effect 2(L) On/Off	0,1	0:Serial
	(b1)Effect 1(R) On/Off	0,1	1:Parallel 1
	(b0)Effect 1(L) On/Off	0,1	2:Parallel 2
			3:Parallel 3
			4:Serial Sub
			5:Parallel Sub
144	FX 1 Parameter(1/8)		
145	FX 1 Parameter(2/8)		
146	FX 1 Parameter(3/8)		
147	FX 1 Parameter(4/8)		
148	FX 1 Parameter(5/8)		
149	FX 1 Parameter(6/8)		
150	FX 1 Parameter(7/8)		
151	FX 1 Parameter(8/8)		
152	FX 1 D-Mod.Source	00~06	None~VDA EG
153	FX 1 D-Mod.Amount	F1~OF	-15~+15
154	FX 2 Parameter(1/8)		

155	FX 2 Parameter(2/8)		
156	FX 2 Parameter(3/8)		
157	FX 2 Parameter(4/8)		
158	FX 2 Parameter(5/8)		
159	FX 2 Parameter(6/8)		
160	FX 2 Parameter(7/8)		
161	FX 2 Parameter(8/8)		
162	FX 2 D-Mod.Source	00~06	None~VDA EG
163	FX 2 D-Mod.Amount	F1~OF	-15~+15
-----			
164~20991	Arrangement C12~C88,D11~D88 (Same as C11)		
-----			

## ARRANGEMENT GLOBAL PARAMETERS

No.	Parameter	Data(h)	Value
00	" Main " MIDI Channel	00~0F	1~16
01	" Sub " MIDI Channel	00~0F	1~16
02	" Lower " MIDI Channel	00~0F	1~16
03	" Drum " MIDI Channel	00~0F	1~16
04	" Perc " MIDI Channel	00~0F	1~16
05	" Bass " MIDI Channel	00~0F	1~16
06	" ACC1 " MIDI Channel	00~0F	1~16
07	" ACC2 " MIDI Channel	00~0F	1~16
08	" ACC3 " MIDI Channel	00~0F	1~16
09	" Harmo " MIDI Channel	00~0F	1~16
10	" K.Bas " MIDI Channel	00~0F	1~16
11	" Chord " MIDI Channel	FF~0F	Off,1~16
12	" Chrd2 " MIDI Channel	FF~0F	Off,1~16
13	" Chrd3 " MIDI Channel	FF~0F	Off,1~16
14	" ArrChg " MIDI Channel	FF~0F	Off,1~16
15	" KBD " MIDI Channel	00~0F	1~16
16	Chord Memory On/Off	00,01	Off,On
17	Chord Sound		
	(b4)Chord Sound Type	0,1	Auto,Actual
	(b0)Chord Sound SW	0,1	Off,On
18	Bass Inversion On/Off	00,01	Off,On
19	...Reserve	-----	-----
20	Tempo Lock On/Off	00,01	Off,On
21	KBD Lock On/Off	00,01	Off,On
22	Ensemble SW On/Off	00,01	Off,On
23	...Reserve	-----	-----
24	Synchro Start/Stop		
	(b1)Stop	0,1	Off,On
	(b0)Start	0,1	Off,On
25	Dynamic Backing	00,01	Off,On
26	Velocity Control	00~03	Off~Fill12
27	Split Point Lock	00,01	Off,On
28	...Reserve	-----	-----
29	...Reserve	-----	-----
30	...Reserve	-----	-----
31	...Reserve	-----	-----
32	ChordSound Sync on/off	0,1	Off,On
33	...Reserve	-----	-----
34	...Reserve	-----	-----
35	...Reserve	-----	-----
36	Lower Chord Recog. Mode	00~02	Easy~One Finger
37	...Reserve	-----	-----
38	...Reserve	-----	-----
39	...Reserve	-----	-----
40	...Reserve	-----	-----
41	...Reserve	-----	-----
42	...Reserve	-----	-----
43	...Reserve	-----	-----
44	...Reserve	-----	-----
45	...Reserve	-----	-----
46	...Reserve	-----	-----
47	...Reserve	-----	-----

[Velocity Control]  
1:Break,2:Fill11,3:Fill12

[Lower Chord Scan Mode]  
00:Easy,  
01:Normal,  
02:One Finger  
  
"Lower Chord Scan Mode"  
is not effective  
at first released system.

## KBD SET PARAMETERS

No.	Parameter	Data(h)	Value
KBD SET 11 Parameters			
00	FULL KBD PLAY	00,01	Off,On
01	Split Point	24~60	C2~C7
02	Chord Scan Parameters		
	(b7)...Reserve	-----	-----
	(b6)...Reserve	-----	-----
	(b5)...(Lower Type)	(0,1)	(Normal,Easy)
	(b4)...Reserve	-----	-----
	(b3)...Reserve	-----	-----
	(b2)...Reserve	-----	-----
	(b1)Chord Scan Upper	0,1	Off,On
	(b0)Chord Scan Lower	0,1	Off,On
03	...Reserve	-----	-----
04	...Reserve	-----	-----
05	...Reserve	-----	-----
06	...Reserve	-----	-----
07	...Reserve	-----	-----
08	Main Vel. Win. Top	01~7F	001~127

"Lower type" is effective  
at first released system.

[Chord Scanning]  
00:Off 02:Upper  
01:Lower 03:FULL

09	Main Vel. Win. Bottom	01~7F	001~127	
10	Sub Vel. Win. Top	01~7F	001~127	
11	Sub Vel. Win. Bottom	01~7F	001~127	
12	Lower Vel. Win. Top	01~7F	001~127	
13	Lower Vel. Win. Bottom	01~7F	001~127	
14	KBD Scale Type	00~29		[Scale Type]
15	KBD Scale Key	00~0B	C,C#~Bb,B	00:Equal Temperament ~29:User Scale 32
-----				
MainKBD PARAMETERS				
-----				
16	Program No.	00~7F		
17	Program Bank	00~04		[Program No.][Program Bank]
18	Volume	00~7F	000~127	Bank=00,No.=00~7F : A11~A88~B88
19	Pan	FF~1F	Off~Prog	Bank=01,No.=00~7F : C11~C88~D88
20	(b7~b4)C Send Level	0~A	0~9,Prog	Bank=02,No.=00~3F : E11~E88
	(b3~b0)D Send Level	0~A	0~9,Prog	Bank=03,No.=00~7F : F11~F88~G88
21	Octave	FE~02	-2~+2	Bank=04,No.=00~27 : R11~R58
22	Out Status			[Pan]
	(b7)...Reserve	-----	-----	FF : OFF
	(b6)Enable Damper Pedal	0,1	Off,On	00 : L15
	(b5)Enable Joystick X	0,1	Off,On	
	(b4)...Reserve	-----	-----	0F : CNT
	(b3)...Reserve	-----	-----	
	(b2)Mute/Play	0,1	Play,Mute	1E : R15
	(b1)External Out	0,1	Off,On	1F : PROG
	(b0)Internal Out	0,1	Off,On	
23	...Reserve	-----	-----	
-----				
SubKBD PARAMETERS				
-----				
24	Program No.	00~7F		
25	Program Bank	00~04		
26	Volume	00~7F	000~127	
27	Pan	FF~1F	Off~Prog	
28	(b7~b4)C Send Level	0~A	0~9,Prog	
	(b3~b0)D Send Level	0~A	0~9,Prog	
29	Octave	FE~02	-2~+2	
30	Out Status			
	(b7)...Reserve	-----	-----	
	(b6)Enable Damper Pedal	0,1	Off,On	
	(b5)Enable Joystick X	0,1	Off,On	
	(b4)...Reserve	-----	-----	
	(b3)...Reserve	-----	-----	
	(b2)Mute/Play	0,1	Play,Mute	
	(b1)External Out	0,1	Off,On	
	(b0)Internal Out	0,1	Off,On	
31	...Reserve	-----	-----	
-----				
LowerKBD PARAMETERS				
-----				
32	Program No.	00~7F		
33	Program Bank	00~04		
34	Volume	00~7F	000~127	
35	Pan	FF~1F	Off~Prog	
36	(b7~b4)C Send Level	0~A	0~9,Prog	
	(b3~b0)D Send Level	0~A	0~9,Prog	
37	Octave	FE~02	-2~+2	
38	Out Status			
	(b7)...Reserve	-----	-----	
	(b6)Enable Damper Pedal	0,1	Off,On	
	(b5)Enable Joystick X	0,1	Off,On	
	(b4)...Reserve	-----	-----	
	(b3)...Reserve	-----	-----	
	(b2)Mute/Play	0,1	Play,Mute	
	(b1)External Out	0,1	Off,On	
	(b0)Internal Out	0,1	Off,On	
39	...Reserve	-----	-----	
-----				
Harmony PARAMETERS				
-----				
40	Program No.	00~7F		
41	Program Bank	00~04		
42	Volume	00~7F	000~127	
43	Pan	FF~1F	Off~Prog	
44	(b7~b4)C Send Level	0~A	0~9,Prog	
	(b3~b0)D Send Level	0~A	0~9,Prog	
45	...Reserve	-----	-----	
46	Out Status			
	(b7)...Reserve	-----	-----	
	(b6)...Reserve	-----	-----	
	(b5)...Reserve	-----	-----	
	(b4)...Reserve	-----	-----	
	(b3)...Reserve	-----	-----	
	(b2)...Reserve	-----	-----	
	(b1)External Out	0,1	Off,On	
	(b0)Internal Out	0,1	Off,On	
47	...Reserve	-----	-----	
-----				
K.Bass PARAMETERS				
-----				
48	Program No.	00~7F		
49	Program Bank	00~04		
50	Volume	00~7F	000~127	
51	Pan	FF~1F	Off~Prog	
52	(b7~b4)C Send Level	0~A	0~9,Prog	
	(b3~b0)D Send Level	0~A	0~9,Prog	
53	...Reserve	-----	-----	
54	Out Status			
	(b7)...Reserve	-----	-----	

	(b6)...Reserve	-----	-----
	(b5)...Reserve	-----	-----
	(b4)...Reserve	-----	-----
	(b3)...Reserve	-----	-----
	(b2)...Reserve	-----	-----
	(b1)External Out	0,1	Off,On
	(b0)Internal Out	0,1	Off,On
55	...Reserve	-----	-----
-----			
56~3583	KBD SET 12~88 (Same as 11)		

## PROGRAM PARAMETERS

No.	Parameter	Data(h)	Value
-----			
Program F11 Parameters			
-----			
000	Program Name(1/16)	20~7E	" " ~ " ~"
001	Program Name(2/16)		(ASCII Code)
002	Program Name(3/16)		
003	Program Name(4/16)		
004	Program Name(5/16)		
005	Program Name(6/16)		
006	Program Name(7/16)		
007	Program Name(8/16)		
008	Program Name(9/16)		
009	Program Name(10/16)		
010	Program Name(11/16)		
011	Program Name(12/16)		
012	Program Name(13/16)		
013	Program Name(14/16)		
014	Program Name(15/16)		
015	Program Name(16/16)		
016	Program Category	00~0F	Keyboard~User
017	...Reserve	-----	-----
-----			
Oscillator			
-----			
018	Oscillator Mode	00~02	[Oscillator Mode]
019	Mono/Hold		When F11~F88~G88 Programs
	(b1)Hold	0,1	00:Single,01:Double
	(b0)Mono	0,1	When R51~58 Programs
020	OSC1 Multisample(LSB)	0000	02:Drum
021	OSC1 Multisample(MSB)	~020A	
022	OSC2 Multisample(LSB)	0000	[Multi Sample]
023	OSC2 Multisample(MSB)	~020A	When F11~F88~G88 Programs
024	OSC1 Octave	FE~01	000:A.Piano 1
025	OSC2 Octave	FE~01	~522:Tb & Tp 3
026	OSC2 Transpose(Interval)	F4~0C	When R51~58 Programs
027	OSC2 Detune	CE~32	Reserve
028	OSC2 Delay	00~63	00~99
-----			
Pitch EG			
-----			
029	Start Level	9D~63	-99~+99
030	Attack Time	00~63	00~99
031	Attack Level	9D~63	-99~+99
032	Decay Time	00~63	00~99
033	Release Time	00~63	00~99
034	Release Level	9D~63	-99~+99
035	Time Mod.Velocity	9D~63	-99~+99
036	Level Velocity Sense	9D~63	-99~+99
-----			
VDF MG			
-----			
037	Waveform/Enable/Sync		
	(b7)Key Sync	0,1	Off,On
	(b6)OSC2 MG Enable	0,1	Off,On
	(b5)OSC1 MG Enable	0,1	Off,On
	(b4)...Reserve	-----	-----
	(b3)...Reserve	-----	-----
	(b2)LFO Waveform(1/3)	0~5	[LFO Waveform]
	(b1)LFO Waveform(2/3)		xxxxxx000:Triangle
	(b0)LFO Waveform(3/3)		xxxxxx001:Up Saw
038	Frequency	00~63	xxxxxx010:Down Saw
039	Delay	00~63	xxxxxx011:Square 1
040	Intensity	00~63	xxxxxx100:Random
			xxxxxx101:Square 2
-----			
Aftertouch			
-----			
041	Pitch Bend Range	F4~0C	-12~+12
042	Cutoff Frequency	9D~63	-99~+99
043	VDF MG Intensity	00~63	00~99
044	OSC Level	9D~63	-99~+99
-----			
Joystick			
-----			
045	Pitch Bend Range(JS X)	F4~0C	-12~+12
046	Cutoff Frequency(JS X)	9D~63	-99~+99
047	VDF MG Intensity(JS-Y)	00~63	00~99
-----			
OSC 1 Parameters			
-----			
OSC 1 Pitch EG			
-----			
048	Pitch EG Intensity	9D~63	-99~+99
-----			



OSC 1 Pitch MG			
-----			
049	Waveform/Enable/Sync		
	(b7)Key Sync	0,1	Off,On
	(b6)...Reserve	-----	-----
	(b5)...Reserve	-----	-----
	(b4)...Reserve	-----	-----
	(b3)...Reserve	-----	-----
	(b2)LFO Waveform(1/3)	0~5	
	(b1)LFO Waveform(2/3)		
	(b0)LFO Waveform(3/3)		
050	Frequency	00~63	00~99
051	Delay	00~63	00~99
052	Fade In	00~63	00~99
053	Intensity	00~63	00~99
054	KBD Tracking(Freq.Mod.)	9D~63	-99~+99
055	Int.Mod. by Aftertouch	00~63	00~99
056	Inr.Mod. by Joystick +Y	00~63	00~99
057	Freq.Control by JS & AT	00~09	0~9
-----			
OSC 1 VDF			
-----			
058	Cutoff Frequency	00~63	00~99
059	KBD Track Pivot Key	00~7F	C-1~G9
060	KBD Track Int.(Cutoff)	9D~63	-99~+99
061	EG Intensity	00~63	00~99
062	EGTime Mod. by KBDTrack	00~63	00~99
063	EGTime Mod. by Velocity	00~63	00~99
064	Velocity Sens.to EG Int.	9D~63	-99~+99
-----			
VDF EG 1			
-----			
065	Attack Time	00~63	00~99
066	Attack Level	9D~63	-99~+99
067	Decay Time	00~63	00~99
068	Break Point	9D~63	-99~+99
069	Slope Time	00~63	00~99
070	Sustain Level	9D~63	-99~+99
071	Release Time	00~63	00~99
072	Release Level	9D~63	-99~+99
-----			
OSC 1 VDA			
-----			
073	OSC Level	00~63	00~99
074	KBD Track Pivot Key	00~7F	C-1~G9
075	KBD Track Int.(Level)	9D~63	-99~+99
076	Velocity Sens.to Level	9D~63	-99~+99
077	EGTime Mod. by KBDTrack	00~63	00~99
078	EGTime Mod. by Velocity	00~63	00~99
-----			
VDA EG 1			
-----			
079	Attack Time	00~63	00~99
080	Attack Level	00~63	00~99
081	Decay Time	00~63	00~99
082	Break Point	00~63	00~99
083	Slope Time	00~63	00~99
084	Sustain Level	00~63	00~99
085	Release Time	00~63	00~99
-----			
OSC 1 EG Time Mod. by KBD Track & Velocity and Mod. SW & Polarity			
-----			
086	VDF EG 1 KBD Track		
	(b7)Release Time Pol.	0,1	+, -
	(b6)Slope Time Pol.	0,1	+, -
	(b5)Decay Time Pol.	0,1	+, -
	(b4)Attack Time Pol.	0,1	+, -
	(b3)Release Time SW	0,1	"0" , "+"or"-"
	(b2)Slope Time SW	0,1	"0" , "+"or"-"
	(b1)Decay Time SW	0,1	"0" , "+"or"-"
	(b0)Attack Time SW	0,1	"0" , "+"or"-"
087	VDF EG 1 Velocity		
	(b7)Release Time Pol.	0,1	+, -
	(b6)Slope Time Pol.	0,1	+, -
	(b5)Decay Time Pol.	0,1	+, -
	(b4)Attack Time Pol.	0,1	+, -
	(b3)Release Time SW	0,1	"0" , "+"or"-"
	(b2)Slope Time SW	0,1	"0" , "+"or"-"
	(b1)Decay Time SW	0,1	"0" , "+"or"-"
	(b0)Attack Time SW	0,1	"0" , "+"or"-"
088	VDA EG 1 KBD Track		
	(b7)Release Time Pol.	0,1	+, -
	(b6)Slope Time Pol.	0,1	+, -
	(b5)Decay Time Pol.	0,1	+, -
	(b4)Attack Time Pol.	0,1	+, -
	(b3)Release Time SW	0,1	"0" , "+"or"-"
	(b2)Slope Time SW	0,1	"0" , "+"or"-"
	(b1)Decay Time SW	0,1	"0" , "+"or"-"
	(b0)Attack Time SW	0,1	"0" , "+"or"-"
089	VDA EG 1 Velocity		
	(b7)Release Time Pol.	0,1	+, -
	(b6)Slope Time Pol.	0,1	+, -
	(b5)Decay Time Pol.	0,1	+, -
	(b4)Attack Time Pol.	0,1	+, -
	(b3)Release Time SW	0,1	"0" , "+"or"-"
	(b2)Slope Time SW	0,1	"0" , "+"or"-"
	(b1)Decay Time SW	0,1	"0" , "+"or"-"
	(b0)Attack Time SW	0,1	"0" , "+"or"-"

[LFO Waveform]  
 xxxxx000:Triangle  
 xxxxx001:Up Saw  
 xxxxx010:Down Saw  
 xxxxx011:Square 1  
 xxxxx100:Random  
 xxxxx101:Square 2

OSC 1 Send Level			
-----			
090	(b7~b4)C Send Level	0~9	0~9
	(b3~b0)D Send Level	0~9	0~9
-----			
OSC 1 VDF Color			
-----			
091	Color (Intensity)	00~63	00~99
092	Velocity Sens.to Color	9D~63	-99~+99
-----			
VDF 1/VDA 1 KBD Track Mode			
-----			
093	KBD Track Mode		
	(b7~b6)...Reserve	-----	-----
	(b5~b4)VDA 1	0~3	Off,Low,Hi,All
	(b3~b2)...Reserve	-----	-----
	(b1~b0)VDF 1	0~3	Off,Low,Hi,All
-----			
OSC 1 Pan			
-----			
094	Pan	FF~1E	
-----			
OSC 2 Parameters (same as OSC 1)			
-----			
095	OSC 2 Pitch EG	same as "048 OSC 1 Pitch EG"	
*	*	*	
*	*	*	
*	*	*	
141	OSC 2 Pan	same as "094 OSC 1 Pan"	
-----			
142	...Reserve	-----	-----
-----			
FX PARAMETERS			
-----			
143	FX 1 Type	00~2F	
144	FX 2 Type	00~2F	
145	FX 1 Dry/Wet Balance(L)	00~64	Dry~Wet
146	FX 1 Dry/Wet Balance(R)	00~64	Dry~Wet
147	FX 2 Dry/Wet Balance(L)	00~64	Dry~Wet
148	FX 2 Dry/Wet Balance(R)	00~64	Dry~Wet
149	Effect Output C Pan	00~65	Off,R,01:99~L
150	Effect Output D Pan	00~65	Off,R,01:99~L
151	Effect I/O		
	(b7)...Reserve	-----	-----
	(b6)Placement(1/3)	0~5	
	(b5)Placement(2/3)		
	(b4)Placement(3/3)		
	(b3)Effect 2(R) On/Off	0,1	Off,On
	(b2)Effect 2(L) On/Off	0,1	Off,On
	(b1)Effect 1(R) On/Off	0,1	Off,On
	(b0)Effect 1(L) On/Off	0,1	Off,On
152	FX 1 Parameter(1/8)		
153	FX 1 Parameter(2/8)		
154	FX 1 Parameter(3/8)		
155	FX 1 Parameter(4/8)		
156	FX 1 Parameter(5/8)		
157	FX 1 Parameter(6/8)		
158	FX 1 Parameter(7/8)		
159	FX 1 Parameter(8/8)		
160	FX 1 D-Mod.Source	00~06	None~VDA EG
161	FX 1 D-Mod.Amount	F1~OF	-15~+15
162	FX 2 Parameter(1/8)		
163	FX 2 Parameter(2/8)		
164	FX 2 Parameter(3/8)		
165	FX 2 Parameter(4/8)		
166	FX 2 Parameter(5/8)		
167	FX 2 Parameter(6/8)		
168	FX 2 Parameter(7/8)		
169	FX 2 Parameter(8/8)		
170	FX 2 D-Mod.Source	00~06	None~VDA EG
171	FX 2 D-Mod.Amount	F1~OF	-15~+15
-----			
172~23391 Program F12~F88,G11~G88,R51~58 (Same as F11)			

[Pan]
FF : OFF
00 : L15
0F : CNT
1E : R15

[FX 1/2 Type]
0:NoEffect
~2F:Delay/RotarySpeaker

[Effect Output C/D Pan]
When Placement is Parallel3
No.141(bit7~4) FX 1 Return L : 0~9
No.141(bit3~0) FX 1 Return R : 0~9
No.142(bit7~4) FX 2 Return L : 0~9
No.142(bit3~0) FX 2 Return R : 0~9

[Placement]
0:Serial
1:Parallel 1
2:Parallel 2
3:Parallel 3
4:Serial Sub

[Pan]  
FF : OFF  
00 : L15  
OF : CNT  
1E : R15

[FX 1/2 Type]  
0:NoEffect  
~2F:Delay/RotarySpeaker  
  
[Effect Output C/D Pan]  
When Placement is Parallel3  
No.141(bit7~4) FX 1 Return L : 0~9  
No.141(bit3~0) FX 1 Return R : 0~9  
No.142(bit7~4) FX 2 Return L : 0~9  
No.142(bit3~0) FX 2 Return R : 0~9  
  
[Placement]  
0:Serial  
1:Parallel 1  
2:Parallel 2  
3:Parallel 3  
4:Serial Sub

## DRUM KIT PARAMETERS (R BANK)

No.	Parameter	Data(h)	Value	
-----				
User Kit R51 A0 Key's Parameters				
-----				
0	Drumsample(LSB)	0000	0~405	
1	Drumsample(MSB)	~0195	16bit data	[Exclusive Group]
2	Exclusive Group	0~11		00 :None
3	Pan	FF~1E	Off,L15~R15	01~16:1~16
4	Detune	CE~32	-50~+50	17 :Self
5	Transpose	E8~18	-24~+24	
6	Adjust Level	9D~63	-99~+99	
7	...Reserve (Fc)	-----	-----	
8	Adjust Decay Time	9D~63	99~+99	
9	(b7~b4)C Send Level	0~9	0~9	
	(b3~b0)D Send Level	0~9	0~9	
-----				
010~879	A#0~C8 Key's Parameters			
-----				
880~7039	R52~R58 User Kit Parameters (same as User Kit R51)			
-----				

[Exclusive Group]  
00 :None  
01~16:1~16  
17 :Self

## GLOBAL PARAMETERS

No.	Parameter	Data(h)	Value
00	Master Tune	CE~32	-50~+50
01	...Reserve	-----	-----
02	Damper Polarity	00,01	Reverse,Korg
03	Assignable Pedal 1	00~40	Off~Data Entry
04	Assignable Pedal 2	00~40	Off~Data Entry
05	...Reserve	-----	-----
06	Global MIDI Channel	00~0F	1~16
07	...Reserve	-----	-----
08	Status	-----	-----
	(b7)...Reserve	-----	-----
	(b6)MIDI EXT Clock	0,1	MIDI IN,To Host
	(b5)Host Baud Rate	0,1	38.4k,31.25k
	(b4)...Reserve	-----	-----
	(b3)XposePosition(1/2)	00~02	[Transpose Position]
	(b2)XposePosition(2/2)		0:Post-KBD
	(b1)MIDI Clock Int/Ext	0,1	1:Pre-Oscillator
	(b0)Local Control	0,1	2:Pre-Oscillator & MIDI OUT
09	MIDI Filter		
	(b7)Discard KORG GM	0,1	[Assign. Pedal 1,2][EC5 A~E][SW 1,2]
	(b6)Note No.Filter(1/2)	1	00:Off
	(b5)Note No.Filter(2/2)	0	20:SYNCHRO STOP
	(b4)Exclusive	0,1	01:DRUMS PLAY/MUTE
	(b3)Control Change	0,1	02:PERC PLAY/MUTE
	(b2)Aftertouch	0,1	03:BASS PLAY/MUTE
	(b1)ProgBank Change	0,1	04:ACC1 PLAY/MUTE
	(b0)Program Change	0,1	05:ACC2 PLAY/MUTE
10	EC5 Pedal "A"	00~28	06:ACC3 PLAY/MUTE
11	EC5 Pedal "B"	00~28	07:LOWER KBD PLAY/MUTE
12	EC5 Pedal "C"	00~28	08:SUB KBD PLAY/MUTE
13	EC5 Pedal "D"	00~28	09:MAIN KBD PLAY/MUTE
14	EC5 Pedal "E"	00~28	0A:CHORD MEMORY
15	SW 1	00~28	0B:CHORD SOUND
16	SW 2	00~28	0C:BASS INVERSION
17	Velocity Curve	00~08	0D:ENSEMBLE
18	Aftertouch Curve	00~07	0E:TEMPO LOCK
19	rit.type	00~06	0F:KBD LOCK
20	rit.beat	00~1F	10:FULL KBD PLAY
21	accel.type	00~06	11:VARIATION 1
22	accel.beat	00~1F	12:VARIATION 2
23	...Reserve	-----	13:VARIATION 3
24	...Reserve	-----	14:VARIATION 4
25	...Reserve	-----	15:FILL 1
26	...Reserve	-----	16:FILL 2
27	...Reserve	-----	17:INTRO/ENDING 1
28	Special Scale Type	00~29	18:INTRO/ENDING 2
29	Special Scale Key	00~0B	19:Intro 1
30	Normal Scale Type	00~29	1A:Intro 2
31	Normal Scale Key	00~0B	1B:Break
32	Userscale 1 [C]	CE~32	1C:START/STOP
33	[C#]	CE~32	1D:REC/WRITE
34	[D]	CE~32	1E:FADE IN/OUT
35	[Eb]	CE~32	1F:SYNCHRO START
36	[E]	CE~32	
37	[F]	CE~32	[Scale Type]
38	[F#]	CE~32	00:Equal Temperament
39	[G]	CE~32	~29>User Scale 32
40	[Ab]	CE~32	
41	[A]	CE~32	
42	[Bb]	CE~32	
43	[B]	CE~32	
44~55	Userscale 2 [C]~[B]		
56~67	Userscale 3 [C]~[B]		
68~79	Userscale 4 [C]~[B]		
80~91	Userscale 5 [C]~[B]		
92~103	Userscale 6 [C]~[B]		
104~115	Userscale 7 [C]~[B]		
116~127	Userscale 8 [C]~[B]		
128~139	Userscale 9 [C]~[B]		
140~151	Userscale 10 [C]~[B]		
152~163	Userscale 11 [C]~[B]		
164~175	Userscale 12 [C]~[B]		
176~187	Userscale 13 [C]~[B]		
188~199	Userscale 14 [C]~[B]		
200~211	Userscale 15 [C]~[B]		
212~223	Userscale 16 [C]~[B]		
224~235	Userscale 17 [C]~[B]		

236~247	Userscale 18 [C ]~[B ]
248~259	Userscale 19 [C ]~[B ]
260~271	Userscale 20 [C ]~[B ]
272~283	Userscale 21 [C ]~[B ]
284~295	Userscale 22 [C ]~[B ]
296~307	Userscale 23 [C ]~[B ]
308~319	Userscale 24 [C ]~[B ]
320~331	Userscale 25 [C ]~[B ]
332~343	Userscale 26 [C ]~[B ]
344~355	Userscale 27 [C ]~[B ]
356~367	Userscale 28 [C ]~[B ]
368~379	Userscale 29 [C ]~[B ]
380~391	Userscale 30 [C ]~[B ]
392~403	Userscale 31 [C ]~[B ]
404~415	Userscale 32 [C ]~[B ]

## STYLE PARAMETERS

## STYLE HEADER

No.	Parameter	Data(h)	Value
Style C*1 or C*5			
00	Data Address LSB		
01	Data Address MSB		
02	...Reserve(Segment LSB)	00	
03	...Reserve(Segment MSB)	00	
04	Size LSB		
05	Size MSB		
Style C*2 or C*6			
06	Data Address LSB		
07	Data Address MSB		
08	...Reserve(Segment LSB)	00	
09	...Reserve(Segment MSB)	00	
10	Size LSB		
11	Size MSB		
Style C*3 or C*7			
12	Data Address LSB		
13	Data Address MSB		
14	...Reserve(Segment LSB)	00	
15	...Reserve(Segment MSB)	00	
16	Size LSB		
17	Size MSB		
Style C*4 or C*8			
18	Data Address LSB		
19	Data Address MSB		
20	...Reserve(Segment LSB)	00	
21	...Reserve(Segment MSB)	00	
22	Size LSB		
23	Size MSB		
24~31	Reserve		

## STYLE CONTROL DATA

No.	Parameter	Data(h)	Value
000	Style Name(1/16)	20~7E	" " ~ " ~"
001	Style Name(2/16)		(ASCII Code)
002	Style Name(3/16)		
003	Style Name(4/16)		
004	Style Name(5/16)		
005	Style Name(6/16)		
006	Style Name(7/16)		
007	Style Name(8/16)		
008	Style Name(9/16)		
009	Style Name(10/16)		
010	Style Name(11/16)		
011	Style Name(12/16)		
012	Style Name(13/16)		
013	Style Name(14/16)		
014	Style Name(15/16)		
015	Style Name(16/16)		
016	Style Category	00~0F	8 Beat~User 4

017	...Reserve	-----	-----	
018	...Reserve(Type)	0	User Created	
019	Tempo	0A~D2	40~240	[Meter]
020	Meter	10~3F		10~14:1/4~5/4 20~29:1/8~10/8 30~3F:1/16~16/16
-----				
021	Note Retrigger Switch			
	(b7)...Reserve	-----	-----	
	(b6)...Reserve	-----	-----	
	(b5)ACC3	0,1	Off,On	
	(b4)ACC2	0,1	Off,On	
	(b3)ACC1	0,1	Off,On	
	(b2)Bass	0,1	Off,On	
	(b1)...Reserve	-----	-----	
	(b0)...Reserve	-----	-----	
-----				
Wrap-Around Point(Note Shift Up Range)				
-----				
022	Bass	00~0B	1~12	
023	ACC1	00~0B	1~12	
024	ACC2	00~0B	1~12	
025	ACC3	00~0B	1~12	
-----				
026	Tension Available			
	(b7)...Reserve	-----	-----	
	(b6)...Reserve	-----	-----	
	(b5)ACC3	0,1	Off,On	
	(b4)ACC2	0,1	Off,On	
	(b3)ACC1	0,1	Off,On	
	(b2)...Reserve	-----	-----	
	(b1)...Reserve	-----	-----	
	(b0)...Reserve	-----	-----	
-----				
027	...Reserve	-----	-----	
028	...Reserve	-----	-----	
029	...Reserve	-----	-----	
030	...Reserve	-----	-----	
031	...Reserve	-----	-----	
032	...Reserve	-----	-----	
033	...Reserve	-----	-----	
034	...Reserve	-----	-----	
035	...Reserve	-----	-----	
036	...Reserve	-----	-----	
037	...Reserve	-----	-----	
038	...Reserve	-----	-----	
039	...Reserve	-----	-----	
040	...Reserve	-----	-----	
041	...Reserve	-----	-----	
042	...Reserve	-----	-----	
043	...Reserve	-----	-----	
044	...Reserve	-----	-----	
045	...Reserve	-----	-----	
-----				
DRUMS PARAMETERS				
-----				
046	Program No.	00~7F		[Program No.][Program Bank]
047	Program Bank	00~04		Bank=00,No.=00~7F : A11~A88~B88
048	Volume	00~7F	000~127	Bank=01,No.=00~7F : C11~C88~D88
049	Pan	FF~1F	Off~Prog	Bank=02,No.=00~3F : E11~E88
-----				
PERC PARAMETERS				
-----				
050	Program No.	00~7F		[Pan]
051	Program Bank	00~04		FF : OFF
052	Volume	00~7F	000~127	00 : L15
053	Pan	FF~1F	Off~Prog	0F : CNT
-----				
BASS PARAMETERS				
-----				
054	Program No.	00~7F		1E : R15
055	Program Bank	00~04		1F : PROG
056	Volume	00~7F	000~127	
057	Pan	FF~1F	Off~Prog	
-----				
ACC1 PARAMETERS				
-----				
058	Program No.	00~7F		
059	Program Bank	00~04		
060	Volume	00~7F	000~127	
061	Pan	FF~1F	Off~Prog	
-----				
ACC2 PARAMETERS				
-----				
062	Program No.	00~7F		
063	Program Bank	00~04		
064	Volume	00~7F	000~127	
065	Pan	FF~1F	Off~Prog	
-----				
ACC3 PARAMETERS				
-----				
066	Program No.	00~7F		
067	Program Bank	00~04		
068	Volume	00~7F	000~127	
069	Pan	FF~1F	Off~Prog	
-----				
Variation 1,CV 1 Parameters				
-----				
070	Key	00~17	Cmaj~Bmin	[Key]
071	Length	01~10	1~16	0:Cmaj,1:Cmin ~22:Bmaj,23:Bmin

Variation 1,CV 2 Parameters			
072	Key	00~17	Cmaj~Bmin
073	Length	01~10	1~16
Variation 1,CV 3 Parameters			
074	Key	00~17	Cmaj~Bmin
075	Length	01~10	1~16
Variation 1,CV 4 Parameters			
076	Key	00~17	Cmaj~Bmin
077	Length	01~10	1~16
Variation 1,CV 5 Parameters			
078	Key	00~17	Cmaj~Bmin
079	Length	01~10	1~16
Variation 1,CV 6 Parameters			
080	Key	00~17	Cmaj~Bmin
081	Length	01~10	1~16
Variation 2,CV 1 Parameters			
082	Key	00~17	Cmaj~Bmin
083	Length	01~10	1~16
Variation 2,CV 2 Parameters			
084	Key	00~17	Cmaj~Bmin
085	Length	01~10	1~16
Variation 2,CV 3 Parameters			
086	Key	00~17	Cmaj~Bmin
087	Length	01~10	1~16
Variation 2,CV 4 Parameters			
088	Key	00~17	Cmaj~Bmin
089	Length	01~10	1~16
Variation 2,CV 5 Parameters			
090	Key	00~17	Cmaj~Bmin
091	Length	01~10	1~16
Variation 2,CV 6 Parameters			
092	Key	00~17	Cmaj~Bmin
093	Length	01~10	1~16
Variation 3,CV 1 Parameters			
094	Key	00~17	Cmaj~Bmin
095	Length	01~10	1~16
Variation 3,CV 2 Parameters			
096	Key	00~17	Cmaj~Bmin
097	Length	01~10	1~16
Variation 3,CV 3 Parameters			
098	Key	00~17	Cmaj~Bmin
099	Length	01~10	1~16
Variation 3,CV 4 Parameters			
100	Key	00~17	Cmaj~Bmin
101	Length	01~10	1~16
Variation 3,CV 5 Parameters			
102	Key	00~17	Cmaj~Bmin
103	Length	01~10	1~16
Variation 3,CV 6 Parameters			
104	Key	00~17	Cmaj~Bmin
105	Length	01~10	1~16
Variation 4,CV 1 Parameters			
106	Key	00~17	Cmaj~Bmin
107	Length	01~10	1~16
Variation 4,CV 2 Parameters			
108	Key	00~17	Cmaj~Bmin
109	Length	01~10	1~16
Variation 4,CV 3 Parameters			
110	Key	00~17	Cmaj~Bmin
111	Length	01~10	1~16

Variation 4, CV 4 Parameters			
112	Key	00~17	Cmaj~Bmin
113	Length	01~10	1~16
Variation 4, CV 5 Parameters			
114	Key	00~17	Cmaj~Bmin
115	Length	01~10	1~16
Variation 4, CV 6 Parameters			
116	Key	00~17	Cmaj~Bmin
117	Length	01~10	1~16
Intro 1, CV 1 Parameters			
118	Key	00~17	Cmaj~Bmin
119	Length	01~10	1~16
Intro 1, CV 2 Parameters			
120	Key	00~17	Cmaj~Bmin
121	Length	01~10	1~16
Intro 2, CV 1 Parameters			
122	Key	00~17	Cmaj~Bmin
123	Length	01~10	1~16
Intro 2, CV 2 Parameters			
124	Key	00~17	Cmaj~Bmin
125	Length	01~10	1~16
Ending 1, CV 1 Parameters			
126	Key	00~17	Cmaj~Bmin
127	Length	01~10	1~16
Ending 1, CV 2 Parameters			
128	Key	00~17	Cmaj~Bmin
129	Length	01~10	1~16
Ending 2, CV 1 Parameters			
130	Key	00~17	Cmaj~Bmin
131	Length	01~10	1~16
Ending 2, CV 2 Parameters			
132	Key	00~17	Cmaj~Bmin
133	Length	01~10	1~16
Fill 1, CV 1 Parameters			
134	Key	00~17	Cmaj~Bmin
135	Length	01~10	1~16
Fill 1, CV 2 Parameters			
136	Key	00~17	Cmaj~Bmin
137	Length	01~10	1~16
Fill 2, CV 1 Parameters			
138	Key	00~17	Cmaj~Bmin
139	Length	01~10	1~16
Fill 2, CV 2 Parameters			
140	Key	00~17	Cmaj~Bmin
141	Length	01~10	1~16
Variation 1 Chord Variation Table			
142	Major	0~5	CV1~CV6
143	6	0~5	CV1~CV6
144	M7	0~5	CV1~CV6
145	M7b5	0~5	CV1~CV6
146	sus4	0~5	CV1~CV6
147	sus2	0~5	CV1~CV6
148	M7sus4	0~5	CV1~CV6
149	m	0~5	CV1~CV6
150	m6	0~5	CV1~CV6
151	m7	0~5	CV1~CV6
152	m7b5	0~5	CV1~CV6
153	mM7	0~5	CV1~CV6
154	7	0~5	CV1~CV6
155	7b5	0~5	CV1~CV6
156	7sus4	0~5	CV1~CV6
157	dim	0~5	CV1~CV6
158	dimM7	0~5	CV1~CV6
159	aug	0~5	CV1~CV6
160	aug7	0~5	CV1~CV6
161	augM7	0~5	CV1~CV6

Variation 2 Chord Variation Table

162	Major	0~5	CV1~CV6
163	6	0~5	CV1~CV6
164	M7	0~5	CV1~CV6
165	M7b5	0~5	CV1~CV6
166	sus4	0~5	CV1~CV6
167	sus2	0~5	CV1~CV6
168	M7sus4	0~5	CV1~CV6
169	m	0~5	CV1~CV6
170	m6	0~5	CV1~CV6
171	m7	0~5	CV1~CV6
172	m7b5	0~5	CV1~CV6
173	mM7	0~5	CV1~CV6
174	7	0~5	CV1~CV6
175	7b5	0~5	CV1~CV6
176	7sus4	0~5	CV1~CV6
177	dim	0~5	CV1~CV6
178	dimM7	0~5	CV1~CV6
179	aug	0~5	CV1~CV6
180	aug7	0~5	CV1~CV6
181	augM7	0~5	CV1~CV6

Variation 3 Chord Variation Table

182	Major	0~5	CV1~CV6
183	6	0~5	CV1~CV6
184	M7	0~5	CV1~CV6
185	M7b5	0~5	CV1~CV6
186	sus4	0~5	CV1~CV6
187	sus2	0~5	CV1~CV6
188	M7sus4	0~5	CV1~CV6
189	m	0~5	CV1~CV6
190	m6	0~5	CV1~CV6
191	m7	0~5	CV1~CV6
192	m7b5	0~5	CV1~CV6
193	mM7	0~5	CV1~CV6
194	7	0~5	CV1~CV6
195	7b5	0~5	CV1~CV6
196	7sus4	0~5	CV1~CV6
197	dim	0~5	CV1~CV6
198	dimM7	0~5	CV1~CV6
199	aug	0~5	CV1~CV6
200	aug7	0~5	CV1~CV6
201	augM7	0~5	CV1~CV6

Variation 4 Chord Variation Table

202	Major	0~5	CV1~CV6
203	6	0~5	CV1~CV6
204	M7	0~5	CV1~CV6
205	M7b5	0~5	CV1~CV6
206	sus4	0~5	CV1~CV6
207	sus2	0~5	CV1~CV6
208	M7sus4	0~5	CV1~CV6
209	m	0~5	CV1~CV6
210	m6	0~5	CV1~CV6
211	m7	0~5	CV1~CV6
212	m7b5	0~5	CV1~CV6
213	mM7	0~5	CV1~CV6
214	7	0~5	CV1~CV6
215	7b5	0~5	CV1~CV6
216	7sus4	0~5	CV1~CV6
217	dim	0~5	CV1~CV6
218	dimM7	0~5	CV1~CV6
219	aug	0~5	CV1~CV6
220	aug7	0~5	CV1~CV6
221	augM7	0~5	CV1~CV6

Intro 1 Chord Variation Table

222	Major	0~1	CV1~CV2
223	6	0~1	CV1~CV2
224	M7	0~1	CV1~CV2
225	M7b5	0~1	CV1~CV2
226	sus4	0~1	CV1~CV2
227	sus2	0~1	CV1~CV2
228	M7sus4	0~1	CV1~CV2
229	m	0~1	CV1~CV2
230	m6	0~1	CV1~CV2
231	m7	0~1	CV1~CV2
232	m7b5	0~1	CV1~CV2
233	mM7	0~1	CV1~CV2
234	7	0~1	CV1~CV2
235	7b5	0~1	CV1~CV2
236	7sus4	0~1	CV1~CV2
237	dim	0~1	CV1~CV2
238	dimM7	0~1	CV1~CV2
239	aug	0~1	CV1~CV2
240	aug7	0~1	CV1~CV2
241	augM7	0~1	CV1~CV2

Intro 2 Chord Variation Table

242	Major	0~1	CV1~CV2
243	6	0~1	CV1~CV2
244	M7	0~1	CV1~CV2
245	M7b5	0~1	CV1~CV2
246	sus4	0~1	CV1~CV2



247	sus2	0~1	CV1~CV2
248	M7sus4	0~1	CV1~CV2
249	m	0~1	CV1~CV2
250	m6	0~1	CV1~CV2
251	m7	0~1	CV1~CV2
252	m7b5	0~1	CV1~CV2
253	mM7	0~1	CV1~CV2
254	7	0~1	CV1~CV2
255	7b5	0~1	CV1~CV2
256	7sus4	0~1	CV1~CV2
257	dim	0~1	CV1~CV2
258	dimM7	0~1	CV1~CV2
259	aug	0~1	CV1~CV2
260	aug7	0~1	CV1~CV2
261	augM7	0~1	CV1~CV2
-----			
Ending 1 Chord Variation Table			
-----			
262	Major	0~1	CV1~CV2
263	6	0~1	CV1~CV2
264	M7	0~1	CV1~CV2
265	M7b5	0~1	CV1~CV2
266	sus4	0~1	CV1~CV2
267	sus2	0~1	CV1~CV2
268	M7sus4	0~1	CV1~CV2
269	m	0~1	CV1~CV2
270	m6	0~1	CV1~CV2
271	m7	0~1	CV1~CV2
272	m7b5	0~1	CV1~CV2
273	mM7	0~1	CV1~CV2
274	7	0~1	CV1~CV2
275	7b5	0~1	CV1~CV2
276	7sus4	0~1	CV1~CV2
277	dim	0~1	CV1~CV2
278	dimM7	0~1	CV1~CV2
279	aug	0~1	CV1~CV2
280	aug7	0~1	CV1~CV2
281	augM7	0~1	CV1~CV2
-----			
Ending 2 Chord Variation Table			
-----			
282	Major	0~1	CV1~CV2
283	6	0~1	CV1~CV2
284	M7	0~1	CV1~CV2
285	M7b5	0~1	CV1~CV2
286	sus4	0~1	CV1~CV2
287	sus2	0~1	CV1~CV2
288	M7sus4	0~1	CV1~CV2
289	m	0~1	CV1~CV2
290	m6	0~1	CV1~CV2
291	m7	0~1	CV1~CV2
292	m7b5	0~1	CV1~CV2
293	mM7	0~1	CV1~CV2
294	7	0~1	CV1~CV2
295	7b5	0~1	CV1~CV2
296	7sus4	0~1	CV1~CV2
297	dim	0~1	CV1~CV2
298	dimM7	0~1	CV1~CV2
299	aug	0~1	CV1~CV2
300	aug7	0~1	CV1~CV2
301	augM7	0~1	CV1~CV2
-----			
Fill 1 Chord Variation Table			
-----			
302	Major	0~1	CV1~CV2
303	6	0~1	CV1~CV2
304	M7	0~1	CV1~CV2
305	M7b5	0~1	CV1~CV2
306	sus4	0~1	CV1~CV2
307	sus2	0~1	CV1~CV2
308	M7sus4	0~1	CV1~CV2
309	m	0~1	CV1~CV2
310	m6	0~1	CV1~CV2
311	m7	0~1	CV1~CV2
312	m7b5	0~1	CV1~CV2
313	mM7	0~1	CV1~CV2
314	7	0~1	CV1~CV2
315	7b5	0~1	CV1~CV2
316	7sus4	0~1	CV1~CV2
317	dim	0~1	CV1~CV2
318	dimM7	0~1	CV1~CV2
319	aug	0~1	CV1~CV2
320	aug7	0~1	CV1~CV2
321	augM7	0~1	CV1~CV2
-----			
Fill 2 Chord Variation Table			
-----			
322	Major	0~1	CV1~CV2
323	6	0~1	CV1~CV2
324	M7	0~1	CV1~CV2
325	M7b5	0~1	CV1~CV2
326	sus4	0~1	CV1~CV2
327	sus2	0~1	CV1~CV2
328	M7sus4	0~1	CV1~CV2
329	m	0~1	CV1~CV2
330	m6	0~1	CV1~CV2
331	m7	0~1	CV1~CV2
332	m7b5	0~1	CV1~CV2
333	mM7	0~1	CV1~CV2

334	7	0~1	CV1~CV2	
335	7b5	0~1	CV1~CV2	
336	7sus4	0~1	CV1~CV2	
337	dim	0~1	CV1~CV2	
338	dimM7	0~1	CV1~CV2	
339	aug	0~1	CV1~CV2	
340	aug7	0~1	CV1~CV2	
341	augM7	0~1	CV1~CV2	
-----				
Pattern 00, Control Data				
-----				
342	Meter	10~3F		[Meter]
343	Length	01~10	1~16	10~14:1/4~5/4
-----				
344~541	Pattern 01~99, Control Data (Same as 00)			
-----				
Variation 1,CV1, DRUMS Data Address				
-----				
542	LSB			
543	MSB			
-----				
Variation 1,CV1, PERC Data Address				
-----				
544	LSB			
545	MSB			
-----				
Variation 1,CV1, BASS Data Address				
-----				
546	LSB			
547	MSB			
-----				
Variation 1,CV1, ACC1 Data Address				
-----				
548	LSB			
549	MSB			
-----				
Variation 1,CV1, ACC2 Data Address				
-----				
550	LSB			
551	MSB			
-----				
Variation 1,CV1, ACC3 Data Address				
-----				
552	LSB			
553	MSB			
-----				
Variation 1,CV2, DRUMS Data Address				
-----				
554	LSB			
555	MSB			
-----				
Variation 1,CV2, PERC Data Address				
-----				
556	LSB			
557	MSB			
-----				
Variation 1,CV2, BASS Data Address				
-----				
558	LSB			
559	MSB			
-----				
Variation 1,CV2, ACC1 Data Address				
-----				
560	LSB			
561	MSB			
-----				
Variation 1,CV2, ACC2 Data Address				
-----				
562	LSB			
563	MSB			
-----				
Variation 1,CV2, ACC3 Data Address				
-----				
564	LSB			
565	MSB			
-----				
Variation 1,CV3, DRUMS Data Address				
-----				
566	LSB			
567	MSB			
-----				
Variation 1,CV3, PERC Data Address				
-----				
568	LSB			
569	MSB			
-----				
Variation 1,CV3, BASS Data Address				
-----				
570	LSB			
571	MSB			
-----				
Variation 1,CV3, ACC1 Data Address				
-----				
572	LSB			
573	MSB			
-----				
Variation 1,CV3, ACC2 Data Address				
-----				
574	LSB			

575	MSB		
-----			
Variation 1,CV3, ACC3 Data Address			
576	LSB		
577	MSB		
-----			
Variation 1,CV4, DRUMS Data Address			
578	LSB		
579	MSB		
-----			
Variation 1,CV4, PERC Data Address			
580	LSB		
581	MSB		
-----			
Variation 1,CV4, BASS Data Address			
582	LSB		
583	MSB		
-----			
Variation 1,CV4, ACC1 Data Address			
584	LSB		
585	MSB		
-----			
Variation 1,CV4, ACC2 Data Address			
586	LSB		
587	MSB		
-----			
Variation 1,CV4, ACC3 Data Address			
588	LSB		
589	MSB		
-----			
Variation 1,CV5, DRUMS Data Address			
590	LSB		
591	MSB		
-----			
Variation 1,CV5, PERC Data Address			
592	LSB		
593	MSB		
-----			
Variation 1,CV5, BASS Data Address			
594	LSB		
595	MSB		
-----			
Variation 1,CV5, ACC1 Data Address			
596	LSB		
597	MSB		
-----			
Variation 1,CV5, ACC2 Data Address			
598	LSB		
599	MSB		
-----			
Variation 1,CV5, ACC3 Data Address			
600	LSB		
601	MSB		
-----			
Variation 1,CV6, DRUMS Data Address			
602	LSB		
603	MSB		
-----			
Variation 1,CV6, PERC Data Address			
604	LSB		
605	MSB		
-----			
Variation 1,CV6, BASS Data Address			
606	LSB		
607	MSB		
-----			
Variation 1,CV6, ACC1 Data Address			
608	LSB		
609	MSB		
-----			
Variation 1,CV6, ACC2 Data Address			
610	LSB		
611	MSB		
-----			
Variation 1,CV6, ACC3 Data Address			
612	LSB		
613	MSB		
-----			
614~829	Variation 2~4 Data Addresses (Same as Var.1)		

-----			
Intro 1,CV1, DRUMS Data Address			
-----			
830	LSB		
831	MSB		
-----			
Intro 1,CV1, PERC Data Address			
-----			
832	LSB		
833	MSB		
-----			
Intro 1,CV1, BASS Data Address			
-----			
834	LSB		
835	MSB		
-----			
Intro 1,CV1, ACC1 Data Address			
-----			
836	LSB		
837	MSB		
-----			
Intro 1,CV1, ACC2 Data Address			
-----			
838	LSB		
839	MSB		
-----			
Intro 1,CV1, ACC3 Data Address			
-----			
840	LSB		
841	MSB		
-----			
Intro 1,CV2, DRUMS Data Address			
-----			
842	LSB		
843	MSB		
-----			
Intro 1,CV2, PERC Data Address			
-----			
844	LSB		
845	MSB		
-----			
Intro 1,CV2, BASS Data Address			
-----			
846	LSB		
847	MSB		
-----			
Intro 1,CV2, ACC1 Data Address			
-----			
848	LSB		
849	MSB		
-----			
Intro 1,CV2, ACC2 Data Address			
-----			
850	LSB		
851	MSB		
-----			
Intro 1,CV2, ACC3 Data Address			
-----			
852	LSB		
853	MSB		
-----			
Intro 2,CV1~2, Data Addresses			
(Same as Intro 1)			
-----			
Ending 1,CV1~2, Data Addresses			
(Same as Intro 1)			
-----			
Ending 2,CV1~2, Data Addresses			
(Same as Intro 1)			
-----			
Fill 1,CV1~2, Data Addresses			
(Same as Intro 1)			
-----			
Fill 2,CV1~2, Data Addresses			
(Same as Intro 1)			
-----			
Pattern 00, Data Address			
-----			
974	LSB		
975	MSB		
-----			
Pattern 01~99, Data Addressses			
(Same as 00)			
-----			
End Pattern Address			
-----			
1174	LSB		
1175	MSB		
-----			

## STYLE SEQUENCE DATA

-----			
No.	Parameter	Data(h)	Value
-----			
Event 1			
-----			
0	1st Data		
1	2nd Data		
2	3rd Data		

3	4th Data		
4~	Event 2~ (same as Event 1)		

## BACKING SEQ PARAMETERS

No.	Parameter	Data(h)	Value
BSEQ 0 Control Data			
000	BSEQ Name(1/16)	20~7E	" " ~ " ~"
001	BSEQ Name(2/16)		(ASCII Code)
002	BSEQ Name(3/16)		
003	BSEQ Name(4/16)		
004	BSEQ Name(5/16)		
005	BSEQ Name(6/16)		
006	BSEQ Name(7/16)		
007	BSEQ Name(8/16)		
008	BSEQ Name(9/16)		
009	BSEQ Name(10/16)		
010	BSEQ Name(11/16)		
011	BSEQ Name(12/16)		
012	BSEQ Name(13/16)		
013	BSEQ Name(14/16)		
014	BSEQ Name(15/16)		
015	BSEQ Name(16/16)		
016	Arrangement No.	0~7F	8 Beat~User 4
017	Arrangement Bank	0,1	AB,CD
018	Style No.	00~7F	[Style No.][Style Bank]
019	Style Bank	00,01	Bank=00, No.=00~7F : A11~A88~B88
020	Initial Variation(1/2)	00~03	Var.1~4
021	Initial Variation(2/2)		00:->Var.1~4
	(b3)Fill	0,1	04: Intro 1
	(b2)Intro	0,1	05: Intro 2
	(b1)...Reserve	-----	08: Fill 1
	(b0)1 or 2	0,1	09: Fill 2
022	Tempo	0A~D2	40~240
023	FULL KBD PLAY	00,01	Off,On
024	Chord Scan Parameters		
	(b7)...Reserve	-----	-----
	(b6)...Reserve	-----	-----
	(b5)...(Lower Type)	(0,1)	(Normal, Easy)
	(b4)...Reserve	-----	-----
	(b3)...Reserve	-----	-----
	(b2)...Reserve	-----	-----
	(b1)Chord Scan Upper	0,1	Off,On
	(b0)Chord Scan Lower	0,1	Off,On
025	...Reserve	-----	-----
026	...Reserve	-----	-----
027	...Reserve	-----	-----
028	...Reserve	-----	-----
029	ACC FX	0,1	[ACC FX] 0:Arrangement 1:Backing SEQ
MainKBD PARAMETERS			
030	Program No.	00~7F	[Program No.][Program Bank]
031	Program Bank	00~04	Bank=00, No.=00~7F : A11~A88~B88
032	...Reserve	-----	-----
033	...Reserve	-----	-----
034	...Reserve	-----	-----
035	Octave	FE~02	-2~+2
036	Out Status		
	(b7)...Reserve	-----	-----
	(b6)...Reserve	-----	-----
	(b5)...Reserve	-----	-----
	(b4)...Reserve	-----	-----
	(b3)...Reserve	-----	-----
	(b2)Mute/Play	0,1	Play, Mute
	(b1)...Reserve	-----	-----
	(b0)...Reserve	-----	-----
037	...Reserve	-----	-----
SubKBD PARAMETERS			
038	Program No.	00~7F	
039	Program Bank	00~04	
040	...Reserve	-----	-----
041	...Reserve	-----	-----
042	...Reserve	-----	-----
043	Octave	FE~02	-2~+2
044	Out Status		
	(b7)...Reserve	-----	-----
	(b6)...Reserve	-----	-----
	(b5)...Reserve	-----	-----
	(b4)...Reserve	-----	-----
	(b3)...Reserve	-----	-----
	(b2)Mute/Play	0,1	Play, Mute
	(b1)...Reserve	-----	-----
	(b0)...Reserve	-----	-----
045	...Reserve	-----	-----
LowerKBD PARAMETERS			
046	Program No.	00~7F	
047	Program Bank	00~04	
048	...Reserve	-----	-----

049	...Reserve	-----	-----	
050	...Reserve	-----	-----	
051	Octave	FE~02	-2~+2	
052	Out Status			
	(b7)...Reserve	-----	-----	
	(b6)...Reserve	-----	-----	
	(b5)...Reserve	-----	-----	
	(b4)...Reserve	-----	-----	
	(b3)...Reserve	-----	-----	
	(b2)Mute/Play	0,1	Play,Mute	
	(b1)...Reserve	-----	-----	
	(b0)...Reserve	-----	-----	
053	...Reserve	-----	-----	
-----				
Arrangement Track Activity				
-----				
054	KBD Track Status	0,1	Mute,Play	
055	Control Track Status	0,1	Mute,Play	
056	Chord Track Status	0,1	Mute,Play	
-----				
057	Tempo Track	0,1	Manual,Auto	[Meter]
058	Meter	10~3F		10~14:1/4~5/4
059	Split Point	24~60	C2~C7	20~29:1/8~10/8
060	Transpose	F5~0B	-11~+11	30~3F:1/16~16/16
-----				
Switches				
-----				
061	...Reserve	-----	-----	
062	Chord Memory On/Off	00,01	Off,On	
063	Chord Sound On/Off	00,01	Off,On	
064	Bass Inversion On/Off	00,01	Off,On	
065	...Reserve	-----	-----	
066	KBD Lock On/Off	00,01	Off,On	
067	Ensemble SW On/Off	00,01	Off,On	
068	...Reserve	-----	-----	
069	Drums Play/Mute	0,1	Play,Mute	
070	Perc Play/Mute	0,1	Play,Mute	
071	Bass Play/Mute	0,1	Play,Mute	
072	ACC1 Play/Mute	0,1	Play,Mute	
073	ACC2 Play/Mute	0,1	Play,Mute	
074	ACC3 Play/Mute	0,1	Play,Mute	
075	...Reserve	-----	-----	
076	...Reserve	-----	-----	
077	...Reserve	-----	-----	
078	...Reserve	-----	-----	
079	Next BSEQ Number	0~9	BSEQ 0~BSEQ 9	
080	Next BSEQ Chain/A-Start			
	(b1)Chain	0,1	Off,On	
	(b0)Auto Start	0,1	Off,On	
-----				
ExtraKBD Track 4 PARAMETERS				
-----				
081	Program No.	00~7F		[Program No.][Program Bank]
082	Program Bank	00~04		Bank=00,No.=00~7F : A11~A88~B88
083	Volume	00~7F	000~127	Bank=01,No.=00~7F : C11~C88~D88
084	Pan	FF~1F	Off~Prog	Bank=02,No.=00~3F : E11~E88
085	(b7~b4)C Send Level	0~A	0~9,Prog	Bank=03,No.=00~7F : F11~F88~G88
	(b3~b0)D Send Level	0~A	0~9,Prog	Bank=04,No.=00~27 : R11~R58
086	Out Status			[Pan]
	(b7)...Reserve	-----	-----	FF : OFF
	(b6)...Reserve	-----	-----	00 : L15
	(b5)...Reserve	-----	-----	
	(b4)...Reserve	-----	-----	
	(b3)...Reserve	-----	-----	0F : CNT
	(b2)Mute/Play	0,1	Play,Mute	
	(b1)External Out	0,1	Off,On	1E : R15
	(b0)Internal Out	0,1	Off,On	1F : PROG
087	PitchBend Range	F4~0D	-12~+12,Prog	
088	Transpose	E8~18	-24~+24	
089	Detune	CE~32	-50~+50	
090	...Reserve(Protect)	0	-----	
091	MIDI Channel	00~0F	1~16	
092	Velocity Window Top	01~7F	001~127	
093	Vel Window Bottom	01~7F	001~127	
094	Key Window Top	00~7F	C-1~G9	
095	Key Window Bottom	00~7F	C-1~G9	
-----				
ExtraKBD Track 5 PARAMETERS				
-----				
096	Program No.	00~7F		
097	Program Bank	00~04		
098	Volume	00~7F	000~127	
099	Pan	FF~1F	Off~Prog	
100	(b7~b4)C Send Level	0~A	0~9,Prog	
	(b3~b0)D Send Level	0~A	0~9,Prog	
101	Out Status			
	(b7)...Reserve	-----	-----	
	(b6)...Reserve	-----	-----	
	(b5)...Reserve	-----	-----	
	(b4)...Reserve	-----	-----	
	(b3)...Reserve	-----	-----	
	(b2)Mute/Play	0,1	Play,Mute	
	(b1)External Out	0,1	Off,On	
	(b0)Internal Out	0,1	Off,On	
102	PitchBend Range	F4~0D	-12~+12,Prog	
103	Transpose	E8~18	-24~+24	
104	Detune	CE~32	-50~+50	
105	...Reserve(Protect)	0	-----	
106	MIDI Channel	00~0F	1~16	

107	Velocity Window Top	01~7F	001~127
108	Vel Window Bottom	01~7F	001~127
109	Key Window Top	00~7F	C-1~G9
110	Key Window Bottom	00~7F	C-1~G9

-----  
ExtraKBD Track 6 PARAMETERS

111	Program No.	00~7F	
112	Program Bank	00~04	
113	Volume	00~7F	000~127
114	Pan	FF~1F	Off~Prog
115	(b7~b4)C Send Level	0~A	0~9, Prog
116	(b3~b0)D Send Level	0~A	0~9, Prog
	Out Status		
	(b7)...Reserve	-----	-----
	(b6)...Reserve	-----	-----
	(b5)...Reserve	-----	-----
	(b4)...Reserve	-----	-----
	(b3)...Reserve	-----	-----
	(b2)Mute/Play	0,1	Play, Mute
	(b1)External Out	0,1	Off, On
	(b0)Internal Out	0,1	Off, On
117	PitchBend Range	F4~0D	-12~+12, Prog
118	Transpose	E8~18	-24~+24
119	Detune	CE~32	-50~+50
120	...Reserve(Protect)	0	-----
121	MIDI Channel	00~0F	1~16
122	Velocity Window Top	01~7F	001~127
123	Vel Window Bottom	01~7F	001~127
124	Key Window Top	00~7F	C-1~G9
125	Key Window Bottom	00~7F	C-1~G9

-----  
ExtraKBD Track 7 PARAMETERS

126	Program No.	00~7F	
127	Program Bank	00~04	
128	Volume	00~7F	000~127
129	Pan	FF~1F	Off~Prog
130	(b7~b4)C Send Level	0~A	0~9, Prog
131	(b3~b0)D Send Level	0~A	0~9, Prog
	Out Status		
	(b7)...Reserve	-----	-----
	(b6)...Reserve	-----	-----
	(b5)...Reserve	-----	-----
	(b4)...Reserve	-----	-----
	(b3)...Reserve	-----	-----
	(b2)Mute/Play	0,1	Play, Mute
	(b1)External Out	0,1	Off, On
	(b0)Internal Out	0,1	Off, On
132	PitchBend Range	F4~0D	-12~+12, Prog
133	Transpose	E8~18	-24~+24
134	Detune	CE~32	-50~+50
135	...Reserve(Protect)	0	-----
136	MIDI Channel	00~0F	1~16
137	Velocity Window Top	01~7F	001~127
138	Vel Window Bottom	01~7F	001~127
139	Key Window Top	00~7F	C-1~G9
140	Key Window Bottom	00~7F	C-1~G9

-----  
ExtraKBD Track 8 PARAMETERS

141	Program No.	00~7F	
142	Program Bank	00~04	
143	Volume	00~7F	000~127
144	Pan	FF~1F	Off~Prog
145	(b7~b4)C Send Level	0~A	0~9, Prog
146	(b3~b0)D Send Level	0~A	0~9, Prog
	Out Status		
	(b7)...Reserve	-----	-----
	(b6)...Reserve	-----	-----
	(b5)...Reserve	-----	-----
	(b4)...Reserve	-----	-----
	(b3)...Reserve	-----	-----
	(b2)Mute/Play	0,1	Play, Mute
	(b1)External Out	0,1	Off, On
	(b0)Internal Out	0,1	Off, On
147	PitchBend Range	F4~0D	-12~+12, Prog
148	Transpose	E8~18	-24~+24
149	Detune	CE~32	-50~+50
150	...Reserve(Protect)	0	-----
151	MIDI Channel	00~0F	1~16
152	Velocity Window Top	01~7F	001~127
153	Vel Window Bottom	01~7F	001~127
154	Key Window Top	00~7F	C-1~G9
155	Key Window Bottom	00~7F	C-1~G9

156~200 Reserve

-----  
ACC FX PARAMETERS when No.29 ACC FX=Backing SEQ

201	FX 1 Type	00~2F		[FX 1/2 Type]
202	FX 2 Type	00~2F		0:NoEffect
203	FX 1 Dry/Wet Balance(L)	00~64	Dry~Wet	~2F:Delay/RotarySpeaker
204	FX 1 Dry/Wet Balance(R)	00~64	Dry~Wet	
205	FX 2 Dry/Wet Balance(L)	00~64	Dry~Wet	
206	FX 2 Dry/Wet Balance(R)	00~64	Dry~Wet	
207	Effect Output C Pan	00~65	Off, R, 01:99~L	[Effect Output C/D Pan]
208	Effect Output D Pan	00~65	Off, R, 01:99~L	When Placement is Parallel3
209	Effect I/O			No.141(bit7~4) FX 1 Return L : 0~9
				No.141(bit3~0) FX 1 Return R : 0~9

	(b7)...Reserve	-----	-----	No.142(bit7~4) FX 2 Return L : 0~9
	(b6)Placement(1/3)	0~5		No.142(bit3~0) FX 2 Return R : 0~9
	(b5)Placement(2/3)			
	(b4)Placement(3/3)			[Placement]
	(b3)Effect 2(R) On/Off	0,1	Off,On	0:Serial
	(b2)Effect 2(L) On/Off	0,1	Off,On	1:Parallel 1
	(b1)Effect 1(R) On/Off	0,1	Off,On	2:Parallel 2
	(b0)Effect 1(L) On/Off	0,1	Off,On	3:Parallel 3
210	FX 1 Parameter(1/8)			4:Serial Sub
211	FX 1 Parameter(2/8)			5:Parallel Sub
212	FX 1 Parameter(3/8)			
213	FX 1 Parameter(4/8)			
214	FX 1 Parameter(5/8)			
215	FX 1 Parameter(6/8)			
216	FX 1 Parameter(7/8)			
217	FX 1 Parameter(8/8)			
218	FX 1 D-Mod.Source	00~06	None~VDA EG	
219	FX 1 D-Mod.Amount	F1~OF	-15~+15	
220	FX 2 Parameter(1/8)			
221	FX 2 Parameter(2/8)			
222	FX 2 Parameter(3/8)			
223	FX 2 Parameter(4/8)			
224	FX 2 Parameter(5/8)			
225	FX 2 Parameter(6/8)			
226	FX 2 Parameter(7/8)			
227	FX 2 Parameter(8/8)			
228	FX 2 D-Mod.Source	00~06	None~VDA EG	
229	FX 2 D-Mod.Amount	F1~OF	-15~+15	
-----				
230~459	BSEQ 1 Control Data (Same as BSEQ 0)			
-----				
460~689	BSEQ 2 Control Data (Same as BSEQ 0)			
-----				
690~919	BSEQ 3 Control Data (Same as BSEQ 0)			
-----				
920~1149	BSEQ 4 Control Data (Same as BSEQ 0)			
-----				
1150~1379	BSEQ 5 Control Data (Same as BSEQ 0)			
-----				
1380~1609	BSEQ 6 Control Data (Same as BSEQ 0)			
-----				
1610~1839	BSEQ 7 Control Data (Same as BSEQ 0)			
-----				
1840~2069	BSEQ 8 Control Data (Same as BSEQ 0)			
-----				
2070~2299	BSEQ 9 Control Data (Same as BSEQ 0)			
-----				
BSEQ 0 Track 1 (KBD Tr) Data Address				
-----				
2300	LSB			
2301	MSB			
-----				
BSEQ 0 Track 2 (Control Tr) Data Address				
-----				
2302	LSB			
2303	MSB			
-----				
BSEQ 0 Track 3 (Chord Tr) Data Address				
-----				
2304	LSB			
2305	MSB			
-----				
BSEQ 0 Track 4 (Dummy Tr) Data Address				
-----				
2306	LSB			
2307	MSB			
-----				
BSEQ 0 Track 5 (Dummy Tr) Data Address				
-----				
2308	LSB			
2309	MSB			
-----				
BSEQ 0 Track 6 (Dummy Tr) Data Address				
-----				
2310	LSB			
2311	MSB			
-----				
BSEQ 0 Track 7 (Dummy Tr) Data Address				
-----				
2312	LSB			
2313	MSB			
-----				
BSEQ 0 Track 8 (Dummy Tr) Data Address				
-----				
2314	LSB			
2315	MSB			
-----				
BSEQ 0 Track 9 (Dummy Tr) Data Address				
-----				
2316	LSB			
2317	MSB			
-----				
BSEQ 0 Track 10 (Dummy Tr) Data Address				
-----				
2318	LSB			
2319	MSB			
-----				
BSEQ 0 Track 11 (Dummy Tr) Data Address				
-----				



2320	LSB		
2321	MSB		
-----			
BSEQ 0 Track 12 (E.KBD4 Tr) Data Address			
-----			
2322	LSB		
2323	MSB		
-----			
BSEQ 0 Track 13 (E.KBD5 Tr) Data Address			
-----			
2324	LSB		
2325	MSB		
-----			
BSEQ 0 Track 14 (E.KBD6 Tr) Data Address			
-----			
2326	LSB		
2327	MSB		
-----			
BSEQ 0 Track 15 (E.KBD7 Tr) Data Address			
-----			
2328	LSB		
2329	MSB		
-----			
BSEQ 0 Track 16 (E.KBD8 Tr) Data Address			
-----			
2330	LSB		
2331	MSB		
-----			
BSEQ 0 Tempo Track Data Address			
-----			
2332	LSB		
2333	MSB		
-----			
2334~2367 BSEQ 1 Data Addresses (same as BSEQ 0)			
-----			
2368~2401 BSEQ 2 Data Addresses (same as BSEQ 0)			
-----			
2402~2435 BSEQ 3 Data Addresses (same as BSEQ 0)			
-----			
2436~2469 BSEQ 4 Data Addresses (same as BSEQ 0)			
-----			
2470~2503 BSEQ 5 Data Addresses (same as BSEQ 0)			
-----			
2504~2537 BSEQ 6 Data Addresses (same as BSEQ 0)			
-----			
2538~2571 BSEQ 7 Data Addresses (same as BSEQ 0)			
-----			
2572~2605 BSEQ 8 Data Addresses (same as BSEQ 0)			
-----			
2606~2639 BSEQ 9 Data Addresses (same as BSEQ 0)			
-----			
End Address			
-----			
2640	LSB		
2641	MSB		
+-----+			

## BACKING SEQ SEQUENCE DATA

No.	Parameter	Data(h)	Value
-----			
Event 1			
-----			
0	1st Data		
1	2nd Data		
2	3rd Data		
3	4th Data		
-----			
4~	Event 2~ (same as Event 1)		

## SONG PARAMETERS

No.	Parameter	Data(h)	Value
-----			
Song 0 Control Data			
-----			
MIDI Chnannel			
-----			
000	Track 1	0~0F	1~16
001	Track 2	0~0F	1~16
002	Track 3	0~0F	1~16
003	Track 4	0~0F	1~16
004	Track 5	0~0F	1~16
005	Track 6	0~0F	1~16
006	Track 7	0~0F	1~16
007	Track 8	0~0F	1~16
008	Track 9	0~0F	1~16
009	Track 10	0~0F	1~16
010	Track 11	0~0F	1~16
011	Track 12	0~0F	1~16
012	Track 13	0~0F	1~16
013	Track 14	0~0F	1~16
014	Track 15	0~0F	1~16
015	Track 16	0~0F	1~16
-----			
Out Status			

016	Track 1		
	(b7)...Reserve	-----	-----
	(b6)...Reserve	-----	-----
	(b5)...Reserve	-----	-----
	(b4)...Reserve	-----	-----
	(b3)...Reserve	-----	-----
	(b2)Mute/Play	0,1	Play,Mute
	(b1)External Out	0,1	Off,On
	(b0)Internal Out	0,1	Off,On
017	Track 2 (same as Track 1)		
018	Track 3 (same as Track 1)		
019	Track 4 (same as Track 1)		
020	Track 5 (same as Track 1)		
021	Track 6 (same as Track 1)		
022	Track 7 (same as Track 1)		
023	Track 8 (same as Track 1)		
024	Track 9 (same as Track 1)		
025	Track 10 (same as Track 1)		
026	Track 11 (same as Track 1)		
027	Track 12 (same as Track 1)		
028	Track 13 (same as Track 1)		
029	Track 14 (same as Track 1)		
030	Track 15 (same as Track 1)		
031	Track 16 (same as Track 1)		
-----			
Pitch Bend Range			
-----			
032	Track 1	F4~0D	-12~+12,Prog
033	Track 2	F4~0D	-12~+12,Prog
034	Track 3	F4~0D	-12~+12,Prog
035	Track 4	F4~0D	-12~+12,Prog
036	Track 5	F4~0D	-12~+12,Prog
037	Track 6	F4~0D	-12~+12,Prog
038	Track 7	F4~0D	-12~+12,Prog
039	Track 8	F4~0D	-12~+12,Prog
040	Track 9	F4~0D	-12~+12,Prog
041	Track 10	F4~0D	-12~+12,Prog
042	Track 11	F4~0D	-12~+12,Prog
043	Track 12	F4~0D	-12~+12,Prog
044	Track 13	F4~0D	-12~+12,Prog
045	Track 14	F4~0D	-12~+12,Prog
046	Track 15	F4~0D	-12~+12,Prog
047	Track 16	F4~0D	-12~+12,Prog
-----			
048	Meter	10~3F	[Meter]
049	Tempo	0A~D2	10~14:1/4~5/4
050	...Reserve(Protect 1~8)	0	20~29:1/8~10/8
051	...Reserve(Protect 9~16)	0	30~3F:1/16~16/16
052	Next Song Number	00~09	Song 0~Song 9
053	Next Song Chain/A-Start		
	(b1)Chain	0,1	Off,On
	(b0)Auto Start	0,1	Off,On
054	Song Name(1/16)	20~7E	" " ~ " ~"
055	Song Name(2/16)		(ASCII Code)
056	Song Name(3/16)		
057	Song Name(4/16)		
058	Song Name(5/16)		
059	Song Name(6/16)		
060	Song Name(7/16)		
061	Song Name(8/16)		
062	Song Name(9/16)		
063	Song Name(10/16)		
064	Song Name(11/16)		
065	Song Name(12/16)		
066	Song Name(13/16)		
067	Song Name(14/16)		
068	Song Name(15/16)		
069	Song Name(16/16)		
070	...Reserve	-----	-----
-----			
FX PARAMETERS			
-----			
071	FX 1 Type	00~2F	[FX 1/2 Type]
072	FX 2 Type	00~2F	0:NoEffect
073	FX 1 Dry/Wet Balance(L)	00~64	~2F:Delay/RotarySpeaker
074	FX 1 Dry/Wet Balance(R)	00~64	
075	FX 2 Dry/Wet Balance(L)	00~64	
076	FX 2 Dry/Wet Balance(R)	00~64	
077	Effect Output C Pan	00~65	[Effect Output C/D Pan]
078	Effect Output D Pan	00~65	When Placement is Parallel3
079	Effect I/O		No.141(bit7~4) FX 1 Return L : 0~9
	(b7)...Reserve	-----	No.141(bit3~0) FX 1 Return R : 0~9
	(b6)Placement(1/3)	0~5	No.142(bit7~4) FX 2 Return L : 0~9
	(b5)Placement(2/3)		No.142(bit3~0) FX 2 Return R : 0~9
	(b4)Placement(3/3)		
	(b3)Effect 2(R) On/Off	0,1	[Placement]
	(b2)Effect 2(L) On/Off	0,1	0:Serial
	(b1)Effect 1(R) On/Off	0,1	1:Parallel 1
	(b0)Effect 1(L) On/Off	0,1	2:Parallel 2
080	FX 1 Parameter(1/8)		3:Parallel 3
081	FX 1 Parameter(2/8)		4:Serial Sub
082	FX 1 Parameter(3/8)		5:Parallel Sub
083	FX 1 Parameter(4/8)		
084	FX 1 Parameter(5/8)		
085	FX 1 Parameter(6/8)		
086	FX 1 Parameter(7/8)		
087	FX 1 Parameter(8/8)		
088	FX 1 D-Mod.Source	00~06	None~VDA EG

089	FX 1 D-Mod.Amount	F1~OF	-15~+15	
090	FX 2 Parameter(1/8)			
091	FX 2 Parameter(2/8)			
092	FX 2 Parameter(3/8)			
093	FX 2 Parameter(4/8)			
094	FX 2 Parameter(5/8)			
095	FX 2 Parameter(6/8)			
096	FX 2 Parameter(7/8)			
097	FX 2 Parameter(8/8)			
098	FX 2 D-Mod.Source	00~06	None~VDA EG	
099	FX 2 D-Mod.Amount	F1~OF	-15~+15	
-----				
Track 1 PARAMETERS				
-----				
100	Program No.	00~7F		
101	Program Bank	00~04		[Program No.][Program Bank]
102	Volume	00~7F	000~127	Bank=00,No.=00~7F : A11~A88~B88
103	Transpose	E8~18	-24~+24	Bank=01,No.=00~7F : C11~C88~D88
104	Detune	CE~32	-50~+50	Bank=02,No.=00~3F : E11~E88
105	Pan	FF~1F	Off~Prog	Bank=03,No.=00~7F : F11~F88~G88
106	(b7~b4)C Send Level	0~A	0~9,Prog	Bank=04,No.=00~27 : R11~R58
	(b3~b0)D Send Level	0~A	0~9,Prog	[Pan]
107	Key Window Top	00~7F	C-1~G9	FF : OFF
108	Key Window Bottom	00~7F	C-1~G9	00 : L15
109	Velocity Window Top	01~7F	001~127	
110	Vel Window Bottom	01~7F	001~127	0F : CNT
111	...Reserve(Ctrl Filter)			
	(b7)...Reserve	-----	-----	1E : R15
	(b6)...Reserve	-----	-----	1F : PROG
	(b5)...Reserve	-----	-----	
	(b4)...Reserve	-----	-----	
	(b3)ControlChange	1	Enable	
	(b2)Aftertouch 0,1	1	Enable	
	(b1)Damper 0,1	1	Enable	
	(b0)Prog.Change	1	Enable	
112	MIDI Channel	00~0F	1~16	
-----				
113~125	Track 2 PARAMETERS (same as Track 1)			
-----				
126~138	Track 3 PARAMETERS (same as Track 1)			
-----				
139~151	Track 4 PARAMETERS (same as Track 1)			
-----				
152~164	Track 5 PARAMETERS (same as Track 1)			
-----				
165~177	Track 6 PARAMETERS (same as Track 1)			
-----				
178~190	Track 7 PARAMETERS (same as Track 1)			
-----				
191~203	Track 8 PARAMETERS (same as Track 1)			
-----				
204~216	Track 9 PARAMETERS (same as Track 1)			
-----				
217~229	Track 10 PARAMETERS (same as Track 1)			
-----				
230~242	Track 11 PARAMETERS (same as Track 1)			
-----				
243~255	Track 12 PARAMETERS (same as Track 1)			
-----				
256~268	Track 13 PARAMETERS (same as Track 1)			
-----				
269~281	Track 14 PARAMETERS (same as Track 1)			
-----				
282~294	Track 15 PARAMETERS (same as Track 1)			
-----				
295~307	Track 16 PARAMETERS (same as Track 1)			
-----				
308	...Reserve	-----	-----	
309	...Reserve	-----	-----	
310	...Reserve	-----	-----	
311	...Reserve	-----	-----	
312	...Reserve	-----	-----	
313	...Reserve	-----	-----	
314	...Reserve	-----	-----	
315	...Reserve	-----	-----	
316	...Reserve	-----	-----	
317	...Reserve	-----	-----	
-----				
318~635	Song 1 Control Data (same as Song 0)			
-----				
636~953	Song 2 Control Data (same as Song 0)			
-----				
954~1271	Song 3 Control Data (same as Song 0)			
-----				
1272~1589	Song 4 Control Data (same as Song 0)			
-----				
1590~1907	Song 5 Control Data (same as Song 0)			
-----				
1908~2225	Song 6 Control Data (same as Song 0)			
-----				
2226~2543	Song 7 Control Data (same as Song 0)			
-----				
2544~2861	Song 8 Control Data (same as Song 0)			
-----				
2862~3179	Song 9 Control Data (same as Song 0)			
-----				
Pattern 00, Control Data				
-----				
3180	Meter	10~3F		[Meter] 10~14:1/4~5/4

3181	Length	01~63	1~99	20~29:1/8~10/8
3182~3379	Pattern 01~99, Control Data(same as 00)			30~3F:1/16~16/16
Song 0 Track 1 Data Address				
3380	LSB			
3381	MSB			
Song 0 Track 2 Data Address (same as Track 1)				
3382	LSB			
3383	MSB			
Song 0 Track 3 Data Address				
3384	LSB			
3385	MSB			
Song 0 Track 4 Data Address				
3386	LSB			
3387	MSB			
Song 0 Track 5 Data Address				
3388	LSB			
3389	MSB			
Song 0 Track 6 Data Address				
3390	LSB			
3391	MSB			
Song 0 Track 7 Data Address				
3392	LSB			
3393	MSB			
Song 0 Track 8 Data Address				
3394	LSB			
3395	MSB			
Song 0 Track 9 Data Address				
3396	LSB			
3397	MSB			
Song 0 Track 10 Data Address				
3398	LSB			
3399	MSB			
Song 0 Track 11 Data Address				
3400	LSB			
3401	MSB			
Song 0 Track 12 Data Address				
3402	LSB			
3403	MSB			
Song 0 Track 13 Data Address				
3404	LSB			
3405	MSB			
Song 0 Track 14 Data Address				
3406	LSB			
3407	MSB			
Song 0 Track 15 Data Address				
3408	LSB			
3409	MSB			
Song 0 Track 16 Data Address				
3410	LSB			
3411	MSB			
Song 0 Tempo Track Data Address				
3412	LSB			
3413	MSB			
3414~3447	Song 1 Data Addresses			
3448~3481	Song 2 Data Addresses			
3482~3515	Song 3 Data Addresses			
3516~3549	Song 4 Data Addresses			
3550~3583	Song 5 Data Addresses			

3584~3617		Song 6 Data Addresses	
3618~3651		Song 7 Data Addresses	
3652~3685		Song 8 Data Addresses	
3686~3719		Song 9 Data Addresses	
-----			
Pattern 00, Data Address			
-----			
3720	LSB		
3721	MSB		
-----			
3722~3919		Pattern 01~99, Data Addresses (same as 00)	
-----			
End Pattern Address			
-----			
3920	LSB		
3921	MSB		

## SONG SEQUENCE DATA

No.	Parameter	Data(h)	Value
Event 1			
0	1st Data		
1	2nd Data		
2	3rd Data		
3	4th Data		
4~	Event 2~ (same as Event 1)		

## EFFECT PARAMETERS (8Byte) 47 Types

Offset	Parameter	Data(h)	Value
--------	-----------	---------	-------

## 1~6:Reverb (Hall,Room)

(00)	Reverb Time	00~61	0.2~9.9(~4.9)s
(01)	( NUL )	00	
(02)	High Damp	00~63	0~99%
(03)	Pre Delay	00~C8	00~200ms
(04)	E.R. Level	00~63	0~99
(05)	( NUL )	00	
(06)	EQ High	F4~0C	-12~+12
(07)	EQ Low	F4~0C	-12~+12

NUL not listed from here on, Value must be 00

## 7~9:Reverb (Plate,Spring)

(00)	Pre Delay	00~C8	0~200ms
(02)	E.R. Level	01~0A	1~10
(03)	Reverb Time	00~63	0~99
(04)	High Damp	00~63	0~99%
(06)	EQ High	F4~0C	-12~+12
(07)	EQ Low	F4~0C	-12~+12

## 10~12:Early Reflections 1,2,3

(00)	E.R. Time	00~46	100~800ms
(01)	Pre Delay	00~C8	0~200ms
(06)	EQ High	F4~0C	-12~+12
(07)	EQ Low	F4~0C	-12~+12

## 13:Stereo Delay, 14:Cross Delay

(00)	Delay Time L (LSB)	0000	0~500ms
(01)	Deray Time L (MSB)	~01F4	
(02)	Feedback	9D~63	-99~+99%
(03)	High Damp	00~63	0~99%
(04)	Delay Time R (LSB)	0000	0~500ms
(05)	Delay Time R (MSB)	~01F4	
(06)	EQ High	F4~0C	-12~+12
(07)	EQ Low	F4~0C	-12~+12

## 15:Dual Mono Delay

(00)	Delay Time L (LSB)	0000	0~500ms
(01)	Deray Time L (MSB)	~01F4	
(02)	Feedback L	9D~63	-99~+99%
(03)	High Damp L	00~63	0~99%
(04)	Delay Time R (LSB)	0000	0~500ms
(05)	Delay Time R (MSB)	~01F4	
(06)	Feedback R	9D~63	-99~+99%
(07)	High Damp R	00~63	0~99%

## 16~18:St. Multitap Delay 1,2,3

(00)	Delay Time A (LSB)	0000	0~500ms
(01)	Delay Time A (MSB)	~01F4	
(02)	Delay Time B (LSB)	0000	0~500ms
(03)	Delay Time B (MSB)	~01F4	
(04)	Feedback	9D~63	-99~+99%
(06)	EQ High	F4~0C	-12~+12
(07)	EQ Low	F4~0C	-12~+12

## 19,20:Stereo Chorus 1,2

(00)	Mod Depth	00~63	0~99	[Mod Speed]
(01)	Mod Speed	00~D8		00~63: 0.0~3.00Hz (0.03step)
(02)	MG Status			34~C7: 3.1~13.0Hz (0.1 step)
	(b2)Wave Shape	0	Normal	C8~D8: 14 ~30Hz (1 step)
	(b1)Phase	1	180deg	
	(b0)LFO Waveform	0,1	Sin,Triangle	
(04)	Delay Time	00~C8	0~200ms	
(06)	EQ High	F4~0C	-12~+12	
(07)	EQ Low	F4~0C	-12~+12	

## 21,22:St. Quadrature Chorus,St. Crossover Chorus

(00)	Delay Time L	00~FA	0~250ms	
(01)	Delay Time R	00~FA	0~250ms	
(02)	Mod Speed	01~63	1~99	
(03)	Mod Depth	00~63	0~99	[Mod Waveform]
(04)	Mod Waveform	EB~14		EB~FF: Tri+10~Tri-10
(06)	EQ High	F4~0C	-12~+12	00~14: Sin-10~Sin+10
(07)	EQ Low	F4~0C	-12~+12	

## 23:Harmonic Chorus

(00)	Delay Time A (LSB)	0000	0~500ms
(01)	Delay Time A (MSB)	~01F4	
(02)	Delay Time B (LSB)	0000	0~500ms
(03)	Delay Time B (MSB)	~01F4	
(04)	Mod Speed	01~63	1~99
(05)	Mod Depth	00~63	0~99
(06)	Filter Split Point	00~12	160Hz~10.0kHz

## 24:Symphonic Ensemble

(00)	Mod Depth	01~63	1~99
(06)	EQ High	F4~0C	-12~+12
(07)	EQ Low	F4~0C	-12~+12

## 25~27:Stereo Flanger1,2, St. Crossover Flanger

(00)	Delay Time	00~C8	0~200
(01)	Mod Depth	00~63	0~99
(02)	Mod Speed	01~63	1~99
(03)	Feedback	9D~63	-99~+99%
(06)	EQ High	F4~0C	-12~+12
(07)	EQ Low	F4~0C	-12~+12

## 28:Stereo Exciter

(00)	Harmonic density	9D~63	-99~+99
(01)	Hot Spot	00~09	1~10
(06)	EQ High	F4~0C	-12~+12
(07)	EQ Low	F4~0C	-12~+12

## 29:Enhancer

(00)	Harmonic Density	01~63	1~99
(01)	Hot Spot	01~14	1~20
(02)	Stereo Width	00~63	0~99
(03)	Delay Time	01~63	1~99
(06)	EQ High	F4~0C	-12~+12
(07)	EQ Low	F4~0C	-12~+12

## 30:Distortion, 31:Over Drive

(00)	Drive	01~6F	1~111
(01)	Hot Spot	00~63	0~99
(02)	Resonance	00~63	0~99
(03)	Distortion Level	00~63	0~99
(06)	EQ High	F4~0C	-12~+12
(07)	EQ Low	F4~0C	-12~+12

## 32,33:Stereo Phaser 1,(2)

(00)	Mod Depth	00~63	0~99	[Mod Speed]
(01)	Mod Speed	00~D8		00~63: 0.0~3.00Hz (0.03step)
(02)	MG Status			34~C7: 3.1~13.0Hz (0.1 step)
	(b2)Wave Shape	0	Normal	C8~D8: 14 ~30Hz (1 step)
	(b1)Phase	1,(0)	180deg,(0deg)	
	(b0)LFO Waveform	0,1	Sin,Triangle	
(03)	Feedback	9D~63	-99~+99%	

(04)	Hot Spot	00~63	0~99
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## 34:Rotary Speaker

(00)	Vibrato Depth	00~0F	0~15
(01)	Acceleration	01~0F	1~15
(02)	Slow Speed	01~63	1~99
(03)	Fast Speed	01~63	1~99

## 35~36:Auto Pan, (Tremolo)

(00)	Mod Depth	00~63	0~99	[Mod Speed] 00~63: 0.0~3.00Hz (0.03step) 34~C7: 3.1~13.0Hz (0.1 step) C8~D8: 14 ~30Hz (1 step)
(01)	Mod Speed	00~D8		
(02)	MG Status			
	(b2)Wave Shape	0	Normal	
	(b1)Phase	1,(0)	180deg,(0deg)	
	(b0)LFO Waveform	0,1	Sin,Triangle	
(03)	LFO Shape	9D~63	-99~+99	
(06)	EQ High	F4~0C	-12~+12	
(07)	EQ Low	F4~0C	-12~+12	

## 37:Parametric EQ

(00)	Low Frequency	00~1D	0~29
(01)	Low Gain	F4~0C	-12~+12dB
(02)	Mid Frequency	00~63	0~99
(03)	Mid Gain	F4~0C	-12~+12dB
(04)	Mid Width	00~63	0~99
(05)	High Frequency	00~1D	0~29
(06)	High Gain	F4~0C	-12~+12dB

## 38:Chorus-Delay

(00)	Chorus Delay Time	00~32	0~50ms
(01)	Mod Speed	01~63	1~99
(02)	Mod Depth	00~63	0~99
(03)	Chorus Feedback	9D~63	-99~+99%
(04)	Delay Time	00~E1	0~450ms
(05)	Delay Feedback	9D~63	-99~+99%

## 39:Flanger-Delay

(00)	Flanger Delay Time	00~32	0~50ms
(01)	Mod Speed	01~63	1~99
(02)	Mod Depth	00~63	0~99
(03)	Flanger Feedback	9D~63	-99~+99%
(04)	Delay Time	00~E1	0~450ms
(05)	Delay Feedback	9D~63	-99~+99%

## 40:Delay/Hall Reverb

(00)	Delay Time (LSB)	0000	0~500ms
(01)	Delay Time (MSB)	~01F4	
(02)	Delay Feedback	9D~63	-99~+99%
(03)	Delay High Damp	00~63	0~99
(04)	Reverb Time	00~61	0.2~9.9s
(06)	Reverb High Damp	00~63	0~99
(07)	Reverb Pre Delay	00~96	0~150ms

## 41:Delay/Room Reverb

(00)	Delay Time (LSB)	0000	0~500ms
(01)	Delay Time (MSB)	~01F4	
(02)	Delay Feedback	9D~63	-99~+99%
(03)	Delay High Damp	00~63	0~99
(04)	Reverb Time	00~2F	0.2~4.9s
(06)	Reverb High Damp	00~63	0~99
(07)	Reverb Pre Delay	00~96	0~150ms

## 42:Delay/Chorus

(00)	Delay Time (LSB)	0000	0~500ms	[Mod Speed] 00~63: 0.0~3.00Hz (0.03step) 34~C7: 3.1~13.0Hz (0.1 step) C8~D8: 14 ~30Hz (1 step)
(01)	Delay Time (MSB)	~01F4		
(02)	Delay Feedback	9D~63	-99~+99%	
(03)	Delay High Damp	00~63	0~99	
(04)	Mod Depth	00~63	0~99	
(05)	Mod Speed	00~D8		
(06)	MG Status			
	(b2)Wave Shape	0	Normal	
	(b1)Phase	0	0deg	
	(b0)LFO Waveform	0,1	Sin,Triangle	

## 43:Delay/Flanger

(00)	Delay Time (LSB)	0000	0~500ms	[Mod Speed] 00~63: 0.0~3.00Hz (0.03step)
(01)	Delay Time (MSB)	~01F4		
(02)	Delay Feedback	9D~63	-99~+99%	
(03)	Delay High Damp	00~63	0~99	
(04)	Mod Depth	00~63	0~99	
(05)	Mod Speed	00~D8		

(06)	MG Status				
	(b2)Wave Shape	1	for Flanger	34~C7: 3.1~13.0Hz (0.1 step)	
	(b1)Phase	0	0deg	C8~D8: 14 ~30Hz (1 step)	
	(b0)LFO Waveform	0	Sin		
(07)	Flanger Feedback	9D~63	-99~+99%		

## 44~45:Delay/Distortion, Delay/Over Drive

(00)	Delay Time (LSB)	0000	0~500ms		
(01)	Delay Time (MSB)	~01F4			
(02)	Delay Feedback	9D~63	-99~+99%		
(03)	Drive	01~6F	1~111		
(04)	Hot Spot	01~63	1~99		
(05)	Resonance	00~63	0~99		
(06)	Distortion Level	01~63	1~99		

## 46:Delay / Phaser

(00)	Delay Time (LSB)	0000	0~500ms		
(01)	Delay Time (MSB)	~01F4			
(02)	Delay Feedback	9D~63	-99~+99%		
(03)	Delay High Damp	00~63	0~99		
(04)	Mod Depth	00~63	0~99		
(05)	Mod Speed	00~D8			
(06)	Phaser Feedback	9D~63	-99~+99		

[Mod Speed]  
00~63: 0.0~3.00Hz (0.03step)  
34~C7: 3.1~13.0Hz (0.1 step)  
C8~D8: 14 ~30Hz (1 step)

## 47:Delay / Rotary Speaker

(00)	Delay Time (LSB)	0000	0~500ms		
(01)	Delay Time (MSB)	~01F4			
(02)	Delay Feedback	9D~63	-99~+99%		
(03)	Acceleration	01~0F	1~15		
(04)	Slow Speed	01~63	1~99		
(05)	Fast Speed	01~63	1~99		

## SEQUENCE DATA FORMAT

## STYLE SEQUENCE DATA

BACKING SEQ SEQUENCE DATA (except "Control Track","Chord Track","Tempo Track")

SONG SEQUENCE DATA (except "Tempo Track")

## \*1 NOTE ON/OFF

DATA(1st) DATA(2nd) DATA(3rd) DATA(4th)

	lvvv	vvv	t	tttt	tttt		kkkk	kkk	g	gggg	gggg	
--	------	-----	---	------	------	--	------	-----	---	------	------	--

Velocity Location Key No. Length

t :1/96th quarter note unit, t = 1FE(h) : Tie from previous bar  
g :1/96th quarter note unit, g = 1FE(h) : Tie to next bar

## \*2 PITCH BEND

DATA(1st) DATA(2nd) DATA(3rd) DATA(4th)

	0001	000	t	tttt	tttt		0	vvv	vvvv		0	vvv	vvvv	
--	------	-----	---	------	------	--	---	-----	------	--	---	-----	------	--

Location Value(H) Value(L)

## \*3 AFTER TOUCH

DATA(1st) DATA(2nd) DATA(3rd) DATA(4th)

	0010	000	t	tttt	tttt		0000	0000		0	vvv	vvvv	
--	------	-----	---	------	------	--	------	------	--	---	-----	------	--

Location Value

## \*4 PROGRAM CHANGE

DATA(1st) DATA(2nd) DATA(3rd) DATA(4th)

	0011	000	t	tttt	tttt		0000	00	bb	0	ppp	pppp	
--	------	-----	---	------	------	--	------	----	----	---	-----	------	--

Location Bank Program No.  
b = 00~04  
p = 00~7F

## \*5 CONTROL CHANGE

DATA(1st) DATA(2nd) DATA(3rd) DATA(4th)

	0100	000	t	tttt	tttt		0	vvv	vvvv		0	ccc	cccc	
--	------	-----	---	------	------	--	---	-----	------	--	---	-----	------	--

Location Value Control No.

## \*6 POLY KEY PRESSURE

DATA(1st) DATA(2nd) DATA(3rd) DATA(4th)

	0101	000	t	tttt	tttt		0	vvv	vvvv		0	kkk	kkkk	
--	------	-----	---	------	------	--	---	-----	------	--	---	-----	------	--

Location Value Key No.

## \*7 BAR

DATA(1st) DATA(2nd) DATA(3rd) DATA(4th)

	0110	00	bb	bbbb	bbbb		xx	ss	ssss		0	ppp	pppp	
--	------	----	----	------	------	--	----	----	------	--	---	-----	------	--

Bar No. Type Beat Pattern No.



x = 00 : Pattern not used  
 = 10 : Pattern continued  
 = 11 : Pattern start  
 s = 10~14 : 1/4~5/4  
 = 20~29 : 1/8~10/8  
 = 30~3F : 1/16~16/16

## \*8 END OF TRACK

DATA(1st)	DATA(2nd)	DATA(3rd)	DATA(4th)
0111 000 t	tttt tttt	0000 00bb	bbbb bbbb
Location		Last Bar No.	

## BACKING SEQ SEQUENCE DATA ("Control Track")

## \*9 BACKING CONTROL EVENT

DATA(1st)	DATA(2nd)	DATA(3rd)	DATA(4th)
10ii iii t	tttt tttt	vvvv vvvv	vvvv vvvv
Event ID	Location	Value L	Value H

No.	Event ID	3rd Byte	4th Byte	Value
0	Arrangement	00~7F	00,01	All~D88
1	Style	00~7F	00,01	All~C68
2	Style Element	FF~0A	00	[Style] -3rd- -4th-
3	Full KBD Play	00,01	00	Off,On
4	Chord Scanning	00~03	00	00~7F 00 :A11~B88 00~2F 01 :C11~C68
5	Chord Memory	00,01	00	Off,On
6	Bass Inversion	00,01	00	Off,On
7	Tranpose	F5~0B	00	[Style Element] -12~+12
8	Drums Mute	00,01	00	Play,Mute
9	Perc Mute	00,01	00	Play,Mute
10	ACC1 Mute	00,01	00	Play,Mute
11	ACC2 Mute	00,01	00	Play,Mute
12	ACC3 Mute	00,01	00	Play,Mute
13	Main KBD Mute	00,01	00	Play,Mute
14	Sub KBD Mute	00,01	00	Play,Mute
15	Lower KBD Mute	00,01	00	Play,Mute
16	Main KBD Program	00~7F	00~04	All~R58
17	Sub KBD Program	00~7F	00~04	All~R58
18	Lower KBD Program	00~7F	00~04	All~R58
19	Main KBD Octave	FE~02	00	[Program] -3rd- -4th-
20	Sub KBD Octave	FE~02	00	-2,~+2
21	Lower KBD Octave	FE~02	00	-2,~+2
22	KBD Set	00~3F	00	11~88
23	Chord Sound	00,01	00	Off,On
24	Ensemble	00,01	00	Off,On
25	KBD Lock	00,01	00	Off,On
26	Split Point	24~60	00	C2~C7

## BACKING SEQ SEQUENCE DATA ("Chord Track")

## \*10 CHORD EVENT

DATA(1st)	DATA(2nd)	DATA(3rd)	DATA(4th)
11ii iii t	tttt tttt	nnnn nnnn	bbbb rrrr
Chord ID	Location	Tension	Note Bass Root
i = 00	No Chord	n = 0000	0001 :b9
01	Major	0000	0010 :9
02	M6	0000	0100 :#9
03	M7	0000	1000 :11
04	M7b5	0001	0000 :#11
05	sus4	0010	0000 :b13
06	sus2	0100	0000 :13
07	M7sus4		
08	m		
09	m6	b = 0x~Bx	:C~B
0A	m7	r = x0~xB	:C~B
0B	m7b5		
0C	mM7		
0D	7		
0E	7b5		
0F	7sus4		
10	dim		
11	dimM7		
12	aug		
13	aug7		
14	augM7		